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INDEX TO ADVERTISEMENTS.

(THOSE WITHOUT NUMBER OF PAGE DO NOT APPEAR IN THIS ISSUE.)

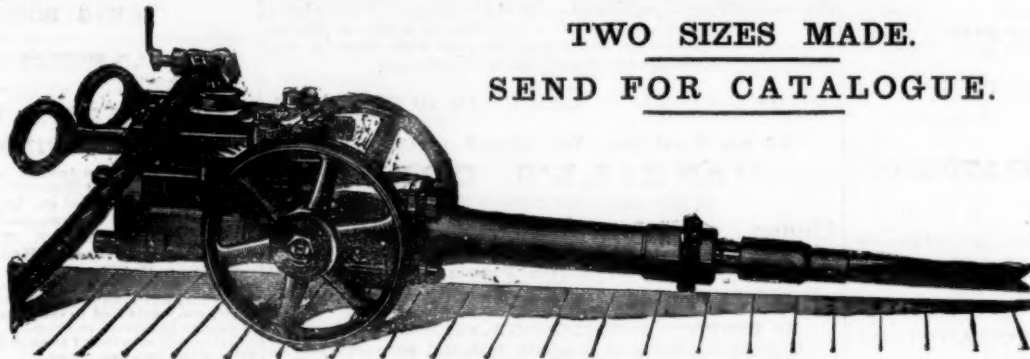
	PAGE.		PAGE.		PAGE.
Ald, J. ... Tubes	809	Frictionless Engine Packing Company ... Engine Packing, &c.	811	Pass and Son ... Buyers of Lead Ashes, &c.	822
Ashbury Railway Carriage and Iron Co. (Ltd.) ... Railway Carriages, &c.	809	Galloway's (Ltd.) ... Steam Boilers	811	Phosphor Bronze Co. (Ltd.) ... Bulls Metal, &c.	825
Austin, J. B. ... Mineralogist	809	Gates Ironworks Co. ... Rock and Ore Breaker	834	Piggott and Co. ... Welded and Rivetted Pipes	822
Bandell, H. E. ... Agent for Foreign Houses, &c.	809	Gilkes and Co. ... Turbines	833	Publications ...	832
Bank of Africa, (Ltd.) ...	832	Green, G. ... Ore Dressing Machinery	812	Robey and Co. ... Engines and Ore Crushers	831
Banking ...	809	Halse, E. ... Mining Engineer	809	Roburite Explosives Co. (Ltd.) ... Explosives	825
Bennett, Sons, and Co. ... Fuse Manufacturers	809	Hett, O. L. ... Turbines	836	Ropeways Syndicate ... Aerial Wire Ropeways	832
Bowen-Scott and Western ... Mining Machinery	812	Holman Bros. ... Rock Drills and Compressors	813	Rose, James ... New Guide to the Iron Trade	832
Bute Works Supply Company (Limited) ... Steel Rails, &c.	831	Howes, S. ... Turbines	833	Sales by Auction ...	831
Business Cards ...	831	Humboldt Engineering Works Co. ... Mining Machinery	813	Schram and Co. ... Rock Drills and Compressors	812
Campbell-Johnston, R. C. ... Mining Engineer	809	Humble, S. jun. ... Hand Power Fan	809	Seward, William ... Share Dealer	809
Calvert, Albert E. ... Mining Engineer	809	Huntington, Professor ... Instruction in Assaying	809	Shipping ...	832
Cambridge School of Mines ... Coal Exporters	809	Ingersoll-Sergeant Drill Co. of America, Rock Drills and Compressors	810	Smith, Chas. ... Mining Agent	809
Cannock Chase Colliery Company ... MacArthur-Forrest Process	833	Ireland, James ... Colliery Ready Reckoner	832	South African Trust and Finance Co. (Ltd.) ... Investments, &c.	809
Cassell Gold Extracting Co. (Ltd.) ... Rock Borer	833	Jones, J. A. ... Mining Engineer	809	Spencer, John ... Iron and Steel Tubes	810
Champion Rock Borer Co. ... The "Rapid" Sampler	811	Kitto, B. ... Assay Office	809	Stanley, W. F. ... Mathematical Instruments	810
Clarkson, T. ... Dry Concentration	811	Krupp Grusonwerk ... Ore Extraction Machinery	811	Stewart and Clydesdale ... Iron and Steel Tubes	812
Clarkson-Standfield Concentrator (Ltd.) ...	831	Larmuth, T. and Co. ... Mining Machinery	811	Symons, Brenton ... Mining Engineer	809
Companies and Legal Announcements ...	831	Lancashire Patent Belting Co. ... Mining Specialties	811	Tacknote ... Form of Licence to Explore	812
Cornforth and Co. ... Share Dealers	809	Lancaster and Tonge ... Steam Pistons	811	Tangyes Limited ... Engines, &c.	812
Cotton Powder Co. (Ltd.) ... Explosives	836	Lewis and Sons ... Tubes	810	To Let ...	831
Davey, Paxman and Co. ... Mining Machinery	809	Lloyd and Lloyd ... Tubes	810	Tuck and Co. (Ltd.) ... Packing Manufacturers	836
Davis, Henry ... Mining Engineer	813	Maclean, J. Grant ... Share and Iron Broker	809	United Asbestos Co. (Ltd.) ... Asbestos	833
Davis and Son ... Mining, &c., Instruments	809	Marsden, H. R. ... Stone Breakers and Ore Crushers	836	Unity Safety Fuse Co. ... Safety Fuse	833
Daw, A. and Z. ... Mining and Civil Engineers	809	Martin and Pethybridge ... Assay Laboratory	809	Vivian's Boring Co. (Ltd.) ... Boring Machinery	809
Daw, A. and Z. ... Rock Drills	834	Merry and Co. ... Assayers	812	Walker Brothers ... Air Compressing Engines	812
Delta Metal Co. (Ltd.) ... Metal	836	Merton and Co. ... Aluminium	812	Wanted ...	831
Dixon and Co. ... Iron Roofs and Buildings	836	Newton, Chambers and Co. (Ltd.) ... "Isal," Sanitary Protection	815	Watson, P. and Co. ... Share Dealers	809
Elliman, Sons, and Co. ... Embrocation	834	Nobel's Explosives Co. (Ltd.) ... Water Cartridges, &c.	835	Wellington and Co. ... Rock Drills	835
Felton and Guilleaume ... Wire Ropes, &c.	831	Pacific Mining Agency and Trust Company ... Commission Agency	812	Weatherdon, J. H. ... "Monarch" Rock Drill	833
For Sale ...	831	Parkin ... Signal Bells	834	White, William ... Mining Engineer	822
Francis and Jenkins ... Copper Works Ladles	810			Wiggin and Co. (Ltd.) ... Nickel Refiners	822
Fraser and Chalmers (Ltd.) ... Mining Machinery	810			Wood, Charles ... Portable Railways, &c.	811

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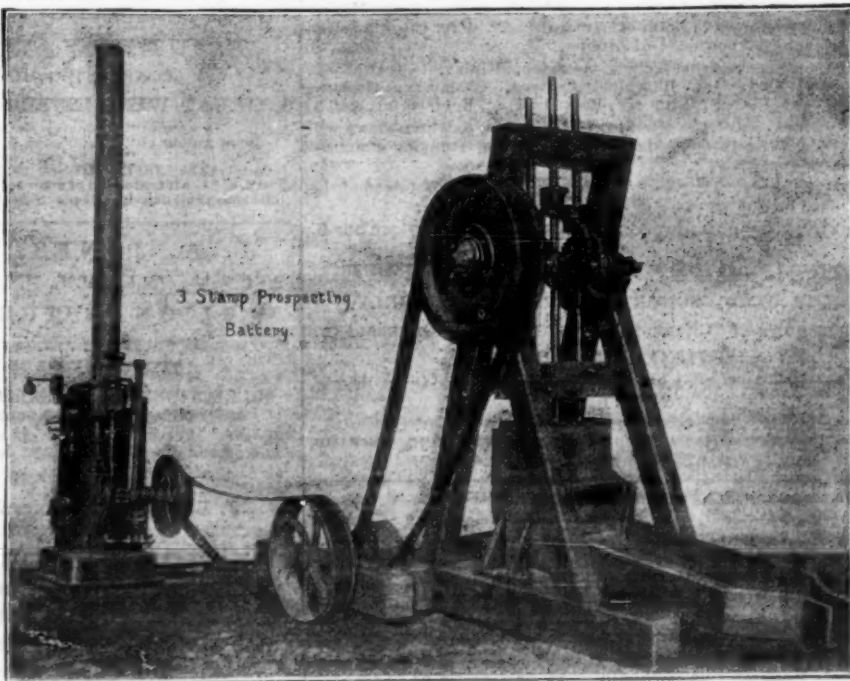
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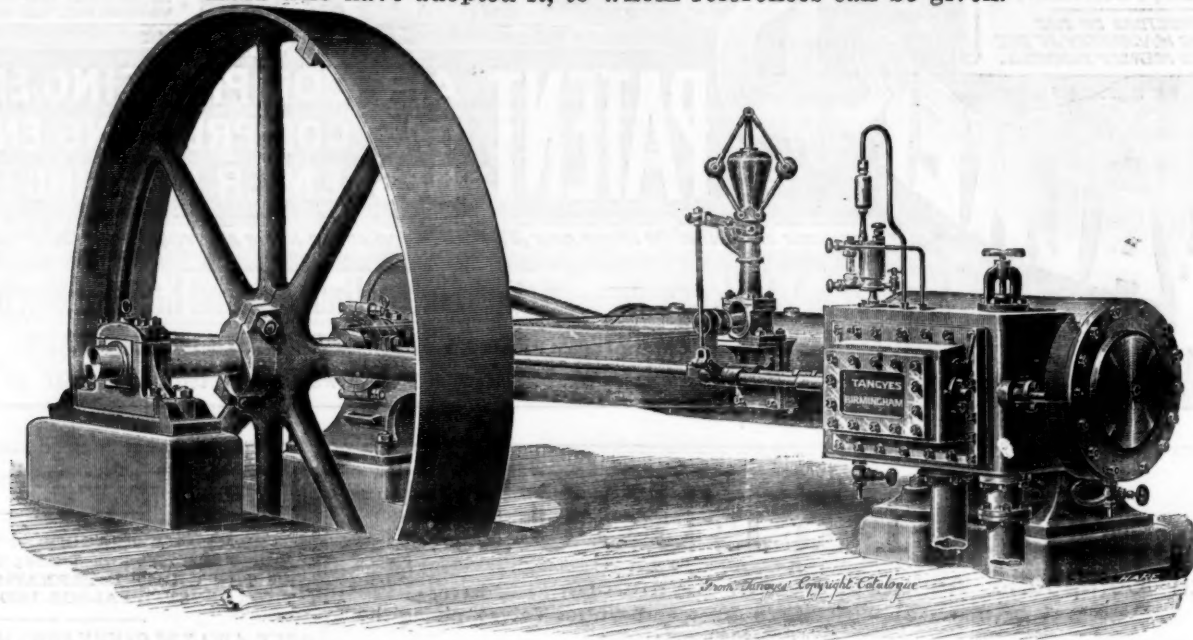
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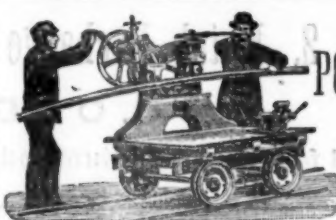
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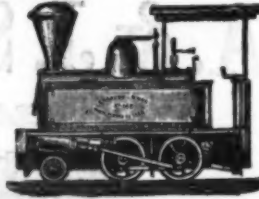
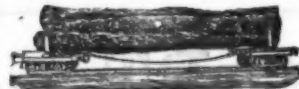
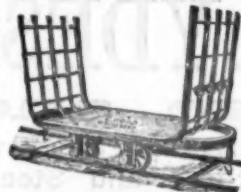
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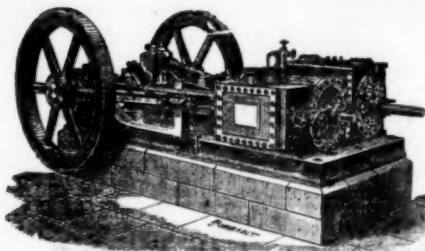
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ESTIMATES AND FULL PARTICULARS ON APPLICATION.

RICHARD SCHRAM & CO., 17a, Great George Street, Westminster, S.W.

TELEGRAMS: "SCHRAM, LONDON," A1, A.B.C. and The Engineering Telegraph Codes Used.

Telegrams—Green, Foundry, Aberystwyth.

SILVER MEDALS AWARDED AT THE ROYAL CORNWALL POLYTECHNIC, 1873 & 1876; GOLD MEDAL AWARDED AT THE GREAT INTERNATIONAL MINING EXHIBITION, CRYSTAL PALACE, 1890.

ONLY AWARDS GIVEN FOR CONCENTRATION PLANTS

GEORGE GREEN'S PATENT Self-Acting or Automatic Ore Dressing Machinery,

A Special Plant, on a reduced scale, has been erected at the Works by which samples of METALLIC ORES—up to Five Tons may be treated, and the commercial value determined, in this way the most suitable arrangement of Plant is ascertained, a considerable advantage to intending Purchasers of Crushing and Concentrating Plant.

GOLD STAMP AND OTHER MILLS.

GEORGE GREEN,
 THE FOUNDRY, ABERYSTWYTH.

Gold Medal, International Exhibition, Paris, 1889.

Gold Medal, Exhibition of Mining & Metallurgy, London, 1890.

PURE ALUMINIUM 98 to 99½ per cent. pure; guaranteed 98 per cent. minimum.

FERRO-ALUMINIUM, ALUMINIUM BRONZE, &c.,

For Iron and Steel Workers,

Founders, Engineers,

And all Metal Workers.

ALUMINIUM.

For prices of above apply to

HENRY R. MERTON & CO.,

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LONDON E.C.

Sole Agents in Great Britain and Ireland for the Aluminium Industry, Co., Neuhausen, Switzerland.

A. & J. STEWART and CLYDESDALE, Limited.

Glasgow, Coatbridge, and Mossend.

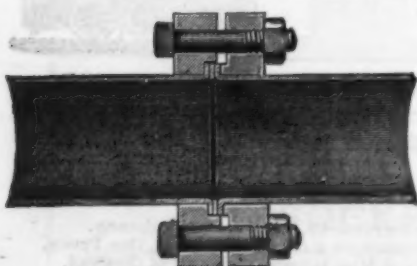
WROUGHT IRON WELDED TUBES and FITTINGS for GAS, WATER, and STEAM.

Light Lap-welded Wrought-iron and Steel Tubes
 (SPECIALLY ADAPTED FOR MINES).

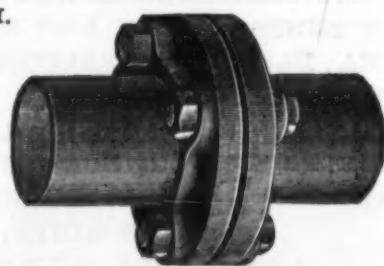
With Patent Flanged Joints (as illustrated) for the Conveyance of Water, Steam, and Air, at High and Low Pressures.

LAP-WELDED IRON AND STEEL BOILER TUBES
 FOR LOCOMOTIVE, MARINE, AND OTHER MULTITUBULAR BOILERS.

STEEL & IRON PLATES FOR BOILERS, BRIDGES, &c.



SECTION OF PATENT FLANGED JOINT



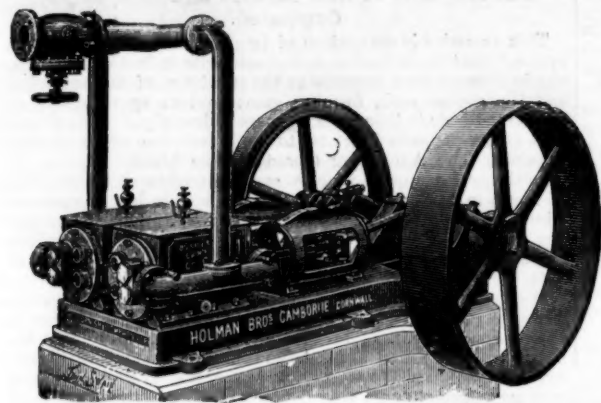
PLAN OF PATENT FLANGED JOINT.

Head Offices: 41, OSWALD STREET, GLASGOW.

HOLMAN Bros., Camborne, Cornwall.

ESTABLISHED 1839.

Patentees and Sole Makers of
"THE CORNISH" ROCK DRILL and "THE CORNISH" COMPRESSOR.



FIRST
SILVER MEDAL,
Highest Award,
Mining Institute
Contest, 1881.
—
Three Makers
represented.



FIRST
SILVER MEDAL
Highest Award,
Royal Cornwall
Polytechnic
Jubilee Exhibition
Contest, 1882.
—
Five Makers
represented.

AWARDED SILVER MEDAL INTERNATIONAL
INVENTIONS EXHIBITION, 1885.

RECORD OF WORK DONE

At Botallack Mine, St. Just, Cornwall, **TWELVE MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** drove, sunk, and rose **288 FATHOMS** in **12 MONTHS**, equal to five times the Speed of Hand Labour.

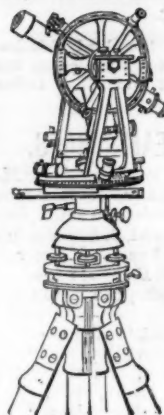
At Wheal Grenville Mine, Camborne, Cornwall, **SIX MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** started from the **150 FATHOMS** level and put up in **EIGHT MONTHS** a **11 FEET** by **5 FEET PERPENDICULAR RISE** **46 FATHOMS 5 FEET 6 INCHES**, and about midway drove **1 FATHOM 5 FT.** No communication of any kind was effected until holing to the Shaft brought down from surface.

Estimates for **ROCK BORING PLANT** and **GENERAL MINING MACHINERY** on Application.

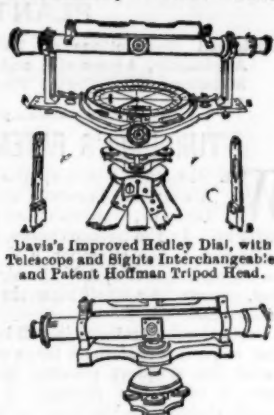
London Representative: Mr. E. M. TOUZEAU, Leadenhall Buildings, London, E.C.

JOHN DAVIS AND SON,

ALL SAINTS WORKS, DERBY;
 118, NEWGATE STREET, LONDON.



Transit Theodolite with Patent
Hoffman Tripod Head, and
Trough Compass.



Dumpy Level with
Hoffman Patent Tripod Head.

**MINING, SURVEYING AND
ENGINEERING INSTRUMENTS.**

THEODOLITES. LEVELS.

Davis's Improved Hedley Miners' Dials with HOFFMAN
PATENT TRIPOD HEAD.
AND ALL DESCRIPTIONS OF MATHEMATICAL AND
MINING SURVEYING INSTRUMENTS.

Revised Illustrated Catalogues Free to any Part of the World.

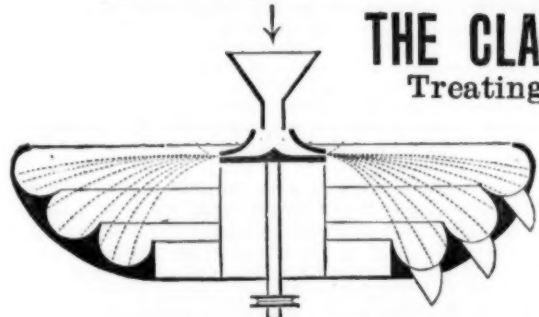
SECTION (A) MATHEMATICAL DEPARTMENT AND SAFETY LAMPS
SECTION (B) ELECTRICAL DEPARTMENT.

Gold Medal Awarded Mining Exhibition, 1890.
 "THE ENGINEERING TELEGRAPH CODE USED."

HENDERSON'S RAPID TRAVERSER.

Highest Award at the Mining Exhibition, 1890.

DRY CONCENTRATION.



THE CLARKSON-STANFIELD CONCENTRATOR (LIMITED), are successfully
 Treating the ores of Gold, Silver, Copper, Lead, Tin, Zinc, Cobalt, &c., &c. of all
 degrees of fineness, from 30 to the finest meshes by their **NEW**
MACHINERY which may be seen in operation at
6, COLONIAL AVENUE, MINORIES, LONDON, E.

Homogeneous substances, such as Emery, Glass, Sand, Sulphur, Black
 Lead, &c., graded according to size in one operation.

Terms for Experimental Concentration, and for Supply of Machines on Application.

NEW PATENTS.

LIST OF APPLICATIONS for New Patents relating to Mining
 Metallurgical, Engineering, Railway and kindred matters,
 specially compiled from official sources for the "Mining
 Journal" by Messrs. Rayner and Company, Patent Agents,
 37, Chancery Lane, London, W.C., who will forward all in-
 formation regarding them free on application.

- 13218 W. H. Ryder and James Insole Ryde, 38, Stanley Street, Birmingham.
—Magnetic separator.—July 9.
- 13250 George Lowry, 8, Quality Court, Chancery Lane, London.—Improvements
in stone breaking and crushing machinery.—July 9.
- 13254 George de Laval, 33, Chancery Lane, London.—Improvements in direct
acting pumping engines.—July 9.
- 13270 Howard Lane and John Pullman, 65, Chancery Lane, London.—Im-
provements in boilers.—July 9.
- 13298 Samuel Griffin, Kingston Ironworks, Bath.—Improvements in gas and
oil motor engines.—July 9.
- 13303 Ernest de Pass, 78, Fleet Street, London.—Improvements in pumping
engines for vacuum and air pumps.—July 10.
- 13333 George Crouden Marks, 18, Southampton Buildings, Chancery Lane,
London.—Improvements in gas engines.—July 10.
- 13424 John Galileo Barclay, 86, Buchanan Street, Glasgow.—Improvements in
and relating to pumping engines.—July 11.
- 13433 John Abraham Noel, 168, Fleet Street, London.—Improvements in or
connected with miners' safety lamps.—July 11.
- 13478 Wallace McGriffin Greaves, Kersal Dale, Manchester.—An improvement
in steam boiler furnace.—July 12.
- 13511 Michael Fitz-Michael Mulready, 28, Southampton Buildings, London.—
Improvements in furnace grates.—July 12.
- 13516 C. W. Thompson, 47, Lincoln's Inn Fields, London.—Improvements in
apparatus for breaking and crushing stones, ores, &c.—July 12.
- 13544 J. W. Gill and Jabez Penn, 47, Newport Street, Newfound, Pool,
Leicester.—Engine.—July 13.
- 13542 Frederick Barker Hill and Robert Daniel Brett, 11, Southampton
Buildings, London.—Improvements in and relating to boilers chiefly
designed for hot water heating apparatus.

SPECIFICATIONS PUBLISHED.

12,576, Priestly, steam generator furnaces, 1893; 14,441, Sims, motive power
engine, 1893; 15,581, McKay, steam boiler furnaces and flues, 1893; 15,947,
Sims, whistles, &c., for explosion engines, 1893; 14,771, Bell and Carter, pre-
cipitating gold and silver from cyanide solutions, 1894; 8744, Bénier, gas gene-
rators, 1894.

The above specifications published may be had of Messrs. Rayner and Com-
pany, 37, Chancery Lane, London, at 10d. each including postage.

The following is an extract from Mr. Klink's report on the
 Denny Dalton Gold Field:—"The reef which is being prospected
 is auriferous, and shows in places patches of ore of an encourag-
 ing nature, running about $\frac{1}{2}$ ounce to the ton, or even more;
 but the average yield does not appear to exceed 4 dwts. to the
 ton. It is possible that by further prospecting in this country
 a reef may be found which, by economic working, will give a
 small profit; but at the present state of working, this country
 is not to be considered as a payable gold field. Owners of farms,
 who appear to feel satisfied at present in having handed their
 farms over to speculators for prospecting purposes, will be well
 advised in sticking to agricultural work, instead of looking hope-
 fully forward to a doubtful golden future."

CONTRACTS OPEN:

FOR MINE, QUARRY, RAILWAY, AND ENGI-
NEERING WORK, STORES, &c.

"We shall be obliged by being promptly placed in possession of particulars
 regarding contracts open for competition, and of the results of successful
 tenders. In the latter case contract prices should be given."

The date given is that by which tenders must be delivered, in nearly all cases further
 information can be obtained on application at the addresses given. In applying
 for such the name of "The Mining Journal" should be mentioned as the original
 source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Reservoirs, July 31 (Nelson).—For the construction of two storage
 reservoirs, and other works in the Ogden Valley, about five miles from Nelson,
 for the Corporation. Plans and specifications to be seen at the Town Hall,
 Nelson, or at the offices of Messrs. John Newton and Son, Carlton Buildings,
 Cooper Street, Manchester.

Underframes, July 30 (London, E.C.).—For the supply of underframes,
 bogie trucks, and body ironwork, for the Bombay, Baroda, and Central India
 Railway Company. Tender must be made on form, copy of which, with specifi-
 cation, can be obtained at the offices, 45, Finsbury Circus, on payment of
 £1 lb., which will not be returned.

Rolling Stock, July 31 (London, N.).—For the supply of 30 or 50 new
 carriages and 12 four-wheeled 15-ton goods brake vans, for the Cheshire Lines
 Committee. Plans may be seen and specifications and forms of tender obtained
 on application to Mr. Thomas Parker, jun., loco. superintendent, M. & L.
 Works, Gorton.

Coal, July 30 (Carnarvon).—For the supply of 1700 tons (more or less) of
 good gas coal and about 150 tons (more or less) of canal or canal nuts, deli-
 vered as required during the year ending August 31, 1895, free in trucks, at
 Carnarvon railway station, London and North Western Railway, for the Gas
 Committee of the Carnarvon Corporation. Information to be obtained from
 Mr. Thomas Wilkinson, manager, Gas Office, Carnarvon.

Reconstruction of Bridge, August 7 (Theale, Berks).—For the recon-
 struction in iron of a bridge carrying the railway over the Holy Brook, near
 the Theale Station, for the Great Western Railway Company. Plans and specifi-
 cation may be seen, and forms of tender and bills of quantities obtained at
 the office of the Engineer at Reading Station between 10 a.m. and 4 p.m.
 Tenders to be addressed to Mr. G. K. Mills, secretary, Paddington Station,
 London.

Girdler Bridges, August 8 (London, E.C.).—For the supply of plate girder
 bridges, for the Bombay, Baroda and Central India Railway Company. Tender
 form with specification to be obtained at the offices, 45, Finsbury Circus, E.C.,
 on payment of £1 lb.

Fencing (Edinburgh).—For the erection of a march fence between the farms
 of Dail and Barra, on Loch Eilve, Argyllshire. Specifications to be obtained on
 application to Mr. Dunn, Broadbaird Estate Office, Kenmore, or from Messrs.
 J. and F. Anderson, W.S., 48, Castle Street, Edinburgh.

Various Railway Stores.—For the supply of (1) weighbridges for bogie
 wagons and timber trucks (2) pillars, posts, &c., for fencing (3) galvanized eye-
 bolts and strand wire for fencing, for the Southern Mahatras Railway Company
 (Limited), as per specification and drawings which may be seen at the office of
 the company, 44, Finsbury Circus, E.C.

FOREIGN CONTRACT

Rails, &c. (Copenhagen).—For the supply of 9000 tons of rails and 1750 tons
 of connecting parts, for the State Railways in Denmark. For conditions apply,
 by letter, to Comptoir der Staatsbahnanlagen, Reventlowgade 18, Copen-
 hagen.

OUR INQUIRY COLUMN.

TO CORRESPONDENTS.

Correspondents will please take note that all communications will in future
 be answered in this column and not through the medium of the post. All
 questions and replies should be accompanied by the name and address of the
 writer.

REPLIES.

C. L.—Certainly.

DUBIOUS.—We do not think you can recover the value of your
 rights.

E. S.—We have not heard of any new stamps being erected.

F. D.—No dividend has been declared since last October.

ANXIOUS.—You need not trouble yourself so much. The shares are
 almost bound to rise.

COVENTRY.—You may risk the purchase of a few.

QUIDNUNC.—We have no high opinion of them. We are of opinion
 the directors are not looking after the interests of the share-
 holders as they ought.

GALENA.—(1.) There are several systems for treating lead tailings
 working successfully both at home and abroad. It is difficult
 to advise as to the best without knowing the percentage of lead
 in the tailings or the nature of the gangue. You will find much
 useful information on the subject in the following articles
 which have appeared during the year in *The Mining Journal*:—
 Choice of Concentration Machinery, February 3; Choice of
 Concentration Machinery, February 24; Old Fashioned Con-
 centration Mills, May 26.—(2.) Three hundred tons a week is
 a very small quantity to treat, as the profits largely depend
 upon the treatment of large daily quantities in order to ensure
 economical working. The tailings must be ground sufficiently
 fine to liberate the grains of galena, and after hydraulic classi-
 fication treated upon some type of concentrator such as the
 Frue vanner or the Bilhars slime table.—(3.) You had better
 put yourself in communication with Mr. E. H. Davis, M.E., F.G.S.,
 of 6, Great Winchester Street, London, E.C., who is the author
 of a work dealing with the subject.

Mr. J. F. BEZUIDENHOUT has brought an action against the
 Worcester Gold Mining Company, in order to obtain a declara-
 tion that he, as owner of the soil, was entitled to all non-auriferous
 mineral products found in the company's claims, and to obtain
 £500 damages in respect of stone taken out of the claims and
 sold by the company to the Johannesburg Sanitary Board. The
 judge held that material taken out in the course of bona fide
 mining operations must be held to belong to the company, and
 judgment was accordingly given for the defendants, with costs.

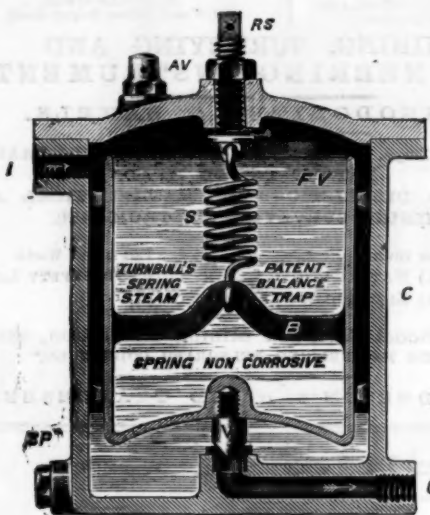
MECHANICAL ENGINEERING: MACHINERY, MINING and RAILWAY PLANT, &c.

Illustrated Descriptions of New and Standard Mechanical Appliances, Accessories and Processes, adapted to Mining, Metallurgical, Railway, Engineering and other Industrial Purposes.

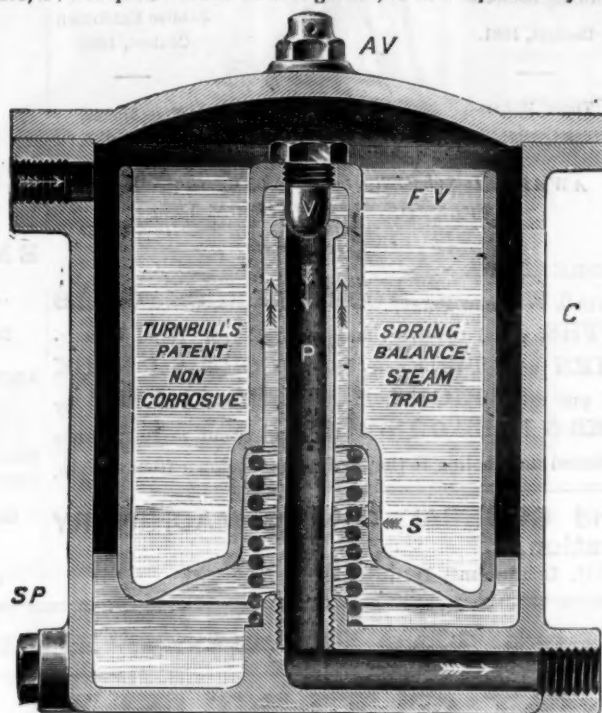
TURNBULL'S PATENT STEAM TRAPS.

WE illustrate herewith the patent steam traps of Messrs Alexander Turnbull and Company, of Bishopbriggs, Glasgow, a speciality of theirs which, we think, deserves publicity. In the balance traps, Nos. 1 and 2, I is the inlet, O the outlet, C the chamber, FV the float vessel, V the valve, S the regulating screw, AV the air valve, SP the sludge plug, or may be a small blow-through cock; the latter is recommended.

From the illustrations it will be apparent to all practical engineers that these traps are direct acting, and are of the simplest possible construction, and that there is an entire absence of cranks, levers, balls, sliding sleeve, double beat or screw shutting valves,



No. 1.



No. 2.

and all their attendant disadvantages. Also that as the total weight of the vessel is carried by the spring (which is made of special metal and which is in all ordinary situations practically non-corrosive), it therefore follows that the total displacement of the float vessel is available to open the valve against the steam pressure, and consequently, when the valve opens it gives, at ordinary pressures, a full and free discharge, the great value of which will be fully understood in prolonging the durability of the bearing surfaces.

feet from the surface, are thickly studded and impregnated with gold, in fact are as rich as most of the "show specimens" which are sent over from West Australia. Mingary is situated in a decidedly auriferous tract of country, and which has long been known as such, but the comparative scarcity of water has proved a drawback to its development. However, that difficulty is pretty well overcome, but there will be trouble incurred securing a sufficient supply for the use of so rich a mine as this promises to become. The adjoining Queen Bee Mine has a good supply in its main shaft at the depth of 192 feet, the water in the shaft being 13 feet deep. These mines are near the eastern terminus, so far as South Australia is concerned, of the great auriferous zone, which is now proved to extend for about 150 miles in this colony from east to west, its western termination, so far as is at present known, being near Carrieton, a small town on the Northern Railway line, 198 miles north of Adelaide. In the neighbourhood of Carrieton, and 30 or 40 miles to the east, three or four new gold bearing reefs are reported to have been discovered, the samples from which have given returns on assay of from 1 to 3 ounces of gold to the ton of stone. And it should be borne in mind that 1 ounce to the ton in South Australia is worth fully 3 ounces in West Australia, on account of the heavy expense and other drawbacks attending mining in the Western Colony.

The second important discovery referred to above is about 12 miles from Petersburg, a large town on the Northern Railway Line, 154 miles north of Adelaide. I saw a large sample of vein-stone in good sized blocks from this discovery, and without seeing any gold pronounced it to be the most promising looking matrix for the precious metal which I had seen. The correctness of my judgment has since been fully confirmed by assays made of the stone, which have given wonderful returns—several hundred ounces of gold to the ton of stone. I expect to visit the locality in a few days, and will then send you a further report upon it. The fact of gold being spread over so large an area of the colony is a very important one, and with modern inventions and processes, by which a larger percentage of gold can be extracted from its matrices, and at less cost than ever before, opens out before us possibilities which should add vastly to our national wealth. If English capitalists who may feel inclined to invest in promising mining ventures would communicate with me, I could put them in the way of probably getting good returns for their money, with less outlay, and less risk of loss than they usually incur. For instance, to mention only two, which I am nursing for better times; I know of a locality most favourable for hydraulic sluicing, there is abundance of permanent water, and I believe the gold in the ground is equal to 4 or 5 dwts. to the ton. The other is a dry digging where very payable gold can be obtained within 20 miles of the railway by a good road. I am prepared to make reasonable terms for either of the above, and am besides acquainted with localities where asbestos, mica, and several other useful minerals are to be found.

A NEW ELECTRICAL FURNACE.—Hitherto in the treatment of ores and other materials by means of electrical smelting, it has been thought desirable to feed these materials into the furnace in as finely-divided a condition as possible, consistent with commercial practicability. Consequently Mons. Girard's notion of passing the materials to be treated into the furnace in a solid state, in a continuous "rod" or cylinder, is almost revolutionary. Of course, this departure is recommended only when the material is itself a conductor of electricity; it is then fed through a hole placed longitudinally in the refractory sides of the furnace. Transverse or radial holes meet this longitudinal one, and permit the insertion of carbons between which and the travelling "rod" of ore the arc is formed which is to supply the heat required. The temperature can be regulated by adjusting the rate of travel of the "rod." In cases where the material to be treated is of a pulverulent character, it is caused to pass through the furnace in a hollow tube of carbon, which either carries the material with it, or is itself stationary and merely acts as a suitable conduit. Mons. Girard's latest improvements in electrical furnaces have been worked out in conjunction with Mons. Street. These involve arrangements for collecting the material, for causing the smelting to take place in an atmosphere of any gas at any pressure, and for enabling the whole of the material to be treated uniformly while either it or the arc is caused to rotate. In one arrangement a magnetic field is so employed that the arc will by the electric action automatically rotate without any relative movement of the parts of the furnace or apparatus.—*Electrical Review.*

SPECIAL CORRESPONDENCE: COLONIAL AND FOREIGN.

OUR SOUTH AUSTRALIAN LETTER.

(FROM OUR OWN CORRESPONDENT).

WE are at last showing unmistakable signs of progress in gold mining. During the past few weeks two most important discoveries have been reported, one from an old gold mining property at Mingary, a few miles west of the border between New South Wales and South Australia, and very near the Broken Hill railway line. The samples of auriferous quartz found on the ground, or at a depth of only a few

THE ZINC ORE DEPOSITS OF SOUTH-WESTERN NEW MEXICO.

By WILLIAM P. BLAKE, Mill Rock, New Haven, Conn.

(Continued from page 797.)

The Deposits of New Mexico and New Jersey Compared.

This remarkable association of large beds of zinc blende with pyrite, hematite, actinolite, and grossularite in lenticular layers, and in disseminated particles in the substance of the actinolite and the garnet rock, forming great contact aggregations or segregated beds in limestone, appears to be unique. The literature of ore deposits does not, to my knowledge, afford another example. The Ammeberg (Sweden) zinc blende deposits in granitic gneiss appear to have some resemblance to the New Mexican in this respect, that the zinc blende has the granite minerals, amphibole, talc, chlorite, garnet, and black tourmaline as associates. It is, however, without iron pyrites or iron ore, and is associated with galena. Green garnet also occurs at Sala, in Sweden, with calc spar, galena, and zinc blende.

We have numerous examples of the association of garnet with magnetite and pyrite (notably with copper pyrites at the Nacosari mines in Sonora, Mexico, and in the Dragon Mountains of Arizona), but not with massive zinc blende. We cannot, however, fail to find a striking analogy between these zinc deposits of New Mexico and those of Sussex county, New Jersey, in that both are in connection with ancient white crystalline limestone; that in both localities the component minerals are arranged in layers parallel to the walls; and that similar silicates, garnets, and amphibole, abound in both places. The zinc and iron ores in New Jersey are in the condition of oxides and silicates, but in New Mexico they exist as sulphides, excepting the hematite. We can easily imagine that by some difference of temperature of solutions and oxidizing influences at the time of the consolidation of the beds in New Mexico, the zinc ore and the pyrites might have lost their sulphur, and have been left in the condition of the New Jersey ores. In both regions we find the zinc ores in juxtaposition with beds of magnetite and hematite. Both regions have underlying granitic rocks, and both are ferri-ferrous and zinciferous. In New Jersey the oxidized ores abound, to the exclusion of the sulphides; and in New Mexico the sulphides abound to the exclusion of the oxides. Yet in New Jersey, further south, in the same limestones which carry the zincite and willemite, we find deposits of zinc blende, which suggest a common origin of the zinc impregnations, though finally formed under different conditions.

In the composition of the New Jersey ores manganese plays an important part, while in the New Mexican ores it is not so abundant, but exist in amphibole, and to some extent in the iron ores, and is found in the zinc carbonate proceeding from decomposition of the blende.

If the great masses of blende and pyrite in New Mexico could be desulphurized in place, we should have beds of oxide of zinc and oxide of iron, more or less intermingled, so as to exhibit much of the same composition as we see in the zinc deposits of Sussex county. The mechanical mixture of zinc blende and actinolite, and zinc blende and garnet, might also give us by alteration a zinc silicate or willemite or zinciferous pyroxene, like jeffersonite, which is abundant in the New Jersey beds contiguous to intrusive dykes.

Metallurgical and Commercial.

From a commercial and metallurgical point of view, the New Mexican ores present great difficulties in the way of immediate utilisation; first, in the matter of transportation to any of the established centres of production of spelter or of oxide; and second, in the objectionable presence, in at least part of the ore, of the heavy garnet from which the blende cannot be mechanically separated. And in the portions of the beds free from garnet the pyrite impairs the value of the zinc-blende for making either oxide or spelter. The pyrite can, however, be removed by the process I have before described, but at present a supply of fuel cannot be obtained at figures sufficiently low to justify the undertaking. When coal can be obtained at a low price, either at Hanover or at the southern terminus of the railway, the higher grades of the mixed ore of blende and garnet and of blende and actinolite, can be worked by either a preliminary conversion into a crude zinc oxide or by lixiviation, after proper roasting. The conversion of the smithsonite and the calamine into crude oxide is also desirable, to minimise the cost of transportation, and to work the lower grade ores which cannot now be profitably sent away. The higher grade ores of smithsonite, carrying 35 per cent. of zinc and over, pay a fair profit when they command over \$20 per ton, but are sent out at a loss at lower figures, the necessary cost of raising the second quality of ore being counted. The freight alone, aside from the cost of carting the ore to the railroad at Hanover, is about \$12 per ton to Waukegan or La Salle, Illinois, or to Mineral Point, Wisconsin. The secondary ores at or near the surface are cheaply mined, and there is but little waste. Expensive hoisting works are not required; simple windlasses suffice; there is no water to contend with, and the claim owners are generally content if they can realise wages by mining and shipping the ore.

The shipments of zinc ore by rail from Hanover up to January, 1894, amounted to 1358 tons of 2000 lbs.

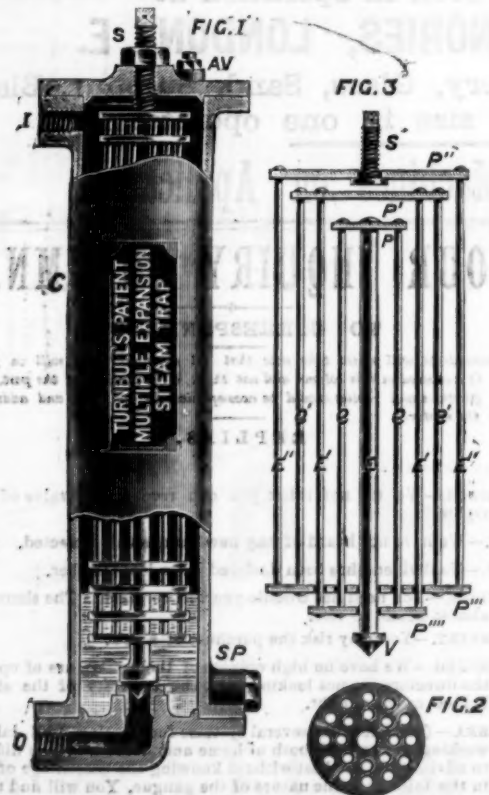
The greater portion has been sent to the oxide works at Mineral Point, Wisconsin; a few tons have been shipped to Waukegan, Illinois. The financial depression of 1893 and the extremely low prices offered for zinc ore have greatly repressed mining, and many of the zinc claims have not been worked lately.

The district also furnished 22,285 tons of iron ore from November 1, 1891, to April 1, 1893.

* A paper read before the Virginian Beach meeting of the American Institute of Mining Engineers.

THE JAPANESE SULPHUR INDUSTRY.—The sulphur industry of Japan is undergoing considerable expansion. Sulphur is found as a glossy product of sublimation, often covering the crater walls, crevices, and clefts of active and extinct volcanoes throughout the country. By far the greatest amount of Japanese sulphur is formed by decomposition of the sulphurated hydrogen of the very numerous "solfataras." The export trade in this article has grown rapidly since the opening of the country to foreign commerce. In the year 1868, the earliest date for which reliable Customs statistics are available, 131 tons were exported. The greater portion went to China. Last year there were 54 mines in operation, of which only 13 produced annually more than 100 tons each. No official estimate has been made of the quantity of sulphur still available. The total product of Japan during 1891—that being the latest year for which reports were published—was 44,505 tons, of which 21,923 tons were refined sulphur.—*Leeds Mercury.*

THE UNITED ASBESTOS COMPANY.—The Lords of the Admiralty have for the 10th time awarded the contract for the supply of "Victor" metallic joints, and other asbestos goods, for use in Her Majesty's Navy, to the United Asbestos Company (Limited).



No. 3.

In No. 1 the spring is in suspension, the valve being at the bottom, while in No. 2 the spring is in compression, and the valve at the top of a central pipe P. The great efficiency of these traps is such as render large sizes quite unnecessary.

The leading features in the multiple expansion steam trap, No. 3, are that it is of very simple construction and direct acting also, that a considerable degree of expansion or opening is obtained with a trap of moderate dimensions. The expansion arrangement, which at first sight may appear puzzling to some, is really of a very simple nature, and consists of a series of rods connected by plates, and suspended loosely by the regulating screw S, so that it cannot be jammed or strained in any way (a defect that is common to many expansion traps), and so that the valve which is formed on the bottom end of the central rod is just touching the seat when there is very little water in the trap.

The rods are arranged in the area of a circle in pairs diametrically. Half the number of pairs E, E', E'', being of a metal having a large co-efficient of expansion, while the other half, e, e', e'', are of a metal having a small co-efficient of expansion, and are so arranged by being fixed to or passing loosely through the plate P, P', P'', &c., as in Fig. 3, that the aggregate difference of expansion due to the number of pairs employed causes the arrangement to shorten or lengthen, and causes the valve to open or shut as water or steam may be in the trap.

NOTES ON THE PHILIPPINE ISLANDS.

By FRANK KARUTH, F.R.G.S.

I.

IT is not improbable that, ere long, we may have to reckon with these islands in the Far East as factors in the world's gold production. That the precious metal is widely distributed in the Archipelago is known to all who know a little more of it than its name, but they are few in number. Few also are the sources whence information can be drawn. Not five books in the English language are worth consulting about them. Crawford's "History of the Indian Archipelago," published early in this century, is still the student's textbook. Whatever has been published since then, when it rises above the level of a mere traveller's tale, is either not comprehensive or not reliable. Jago's, the German naturalist's work, of which there exists a fairly good English translation, is rough and fragmentary, and not rarely wrong in its generalisations. The most recent English book on the Philippines, compiled a year or two ago by an American traveller in sugar machinery, contains a summary of the history, and a rudimentary itinerary of the islands, of which he did not see the one-hundredth part. Whoever will fill up a serious void in geographical literature by writing a reliable handbook of the Philippines, will deserve well of science. He would find a welcome, and abundance of material in the Archives of Madrid. The Spanish Government encourages scientific research, and desires the development of its rich and fertile possessions in the Far East. Those Archives are filled to overflowing with invaluable information and possibilities, lying dormant in their pigeon-holes, but deserving the closest attention of men of science and followers of industry and commerce.

The number of the islands which form the Philippine Archipelago will astonish many readers. It is said to approach 2000. There are two among them larger than Ireland—namely, Luzon with 42,000, and Mindanao with 38,000 square miles, and there are other islands with 5500, 5000, 4500, 4000, 3500, and 3000 square miles. The total area of the group is nearly 120,000 square miles—that is to say, it is almost half as big again as our Australian colony of Victoria. The number of its inhabitants is estimated at over 10,000,000.

As regards the indigenous races in the Philippine Islands, an interesting problem has been satisfactorily solved by the Spanish colonisers—namely, that of the civilisation, such as it is, of the natives without much more pressure or force than that of example. The history of the conquest of America by the Castilian adventurers is gruesome reading. Greed of gold, and unutterable cruelties in its pursuit, have sullied the memories of heroes, who live in history. The Conquistadores swept in terrible torrents over ancient empires, and left behind them the seed for the crop of republics, in which in our days pronunciamientos and revolutions are carried on like commercial ventures or reasonable distractions, and where nothing seems stable except the instability of the rulers. The blame cannot be wholly laid on the sovereigns under whose auspices the galleons of the adventurers turned their prow towards the setting sun. Those who arrived in the land of the Incas were beyond the power of their rulers in Spain, and followed unshackled the dictates of greed, lust, and bigotry.

It is somewhere said that the torrents of blood shed in Mexico and Peru were the cause of the gentle treatment of the indigenous races in the Philippine Islands. However that may be, the facts are incontrovertible, and can be proved from evidence other than Spanish.

The Philippine Archipelago was discovered by Magellan in 1520, and the capital of the colony (Manila) was founded in 1571. Let us hear what Mr. John Crawford, F.R.S., erstwhile British Resident at the Court of the Sultan of Java, and author of the standard "History of the Indian Archipelago," has to say about Spanish rule in the Philippines. He writes thus—"The influence of the Spanish Government on the fortunes and history of the inhabitants of the Archipelago may be said to be confined to the Philippines. In this extensive and important portion of the Indian islands, it has been peculiarly active. Almost every other country of the Archipelago is at this day in point of wealth, power and civilisation, in a worse state than when Europeans connected themselves with them three centuries back. The Philippines alone have improved in civilisation, wealth and populousness. When discovered most of the tribes were a race of half-naked savages, inferior to all the great tribes who were pushing, at the same time, an active commerce, and enjoying a respectable share of the necessities and comforts of a civilised state. Upon the whole, they are at present superior in almost everything to any of the other races. This is a valuable and instructive fact, and the cause deserves to be traced. In the first place, the Spanish Government has never, in the case of its dominions, pursued, like other nations, the visionary and pernicious principle of drawing a direct profit from the commercial industry of its colonies by appearing in the character of sole or chief merchant. On the contrary, private industry has been permitted some scope, and the wholesome principles of competition have had some operation. The Spanish Government has rested satisfied with deriving a revenue from a fixed capitation tax on its native subjects. But, above all, the prosperity of the Philippines has been owing to the freedom given to European colonisation. The Spaniards permitted to their countrymen a perfect freedom of colonisation, and the unappropriated lands were freely distributed among them. They have mixed with the native inhabitants, and lived familiarly with them. The consequence has been that, through the medium of religious and other instruction, and general communication, the influence of the genius and manners of Europe has been felt by the native races, and produced corresponding benefits. The influence of religion had a large share in it. The expedition, which was sent to annex the Philippines, was accompanied by a number of priests, who were actively employed in the pious office of converting the simple natives, and it may be safely asserted that the benevolent influence of religion has had, from the earliest to the latest period of the Spanish authority in these islands, the most powerful ascendancy in the civilisation of the people, and in reconciling them to their conquerors."

After describing the attack made by the British on the Philippines in 1762, Mr. Crawford says—"The Indians, influenced by the priests, and attachment to their religion, very generally continued to assist the Spaniards, although the English had recourse to the unjustifiable means of promising a remission of the tribute paid by them to the European power. If the goodness of a Government is to be judged by the attachment of the great body of its subjects, the Spanish administration of the Philippines stands higher than any other which was ever established in the Archipelago, and probably higher than that of the British Government in India." Thus writes a British authority of unimpeachable standing.

The character of the fauna and flora of the Philippine Islands is, to a certain extent, of the Melanesian or Australian type, and differs widely from that of the Malaysian Archipelago, from which it is separated by a narrow but very deep strip of sea. The Philippines rejoice in that distinctly Australian bird, the cockatoo, as an indigenous member of their avifauna, and in the

entire absence of the tiger or any other representative of the large Felidae. There are reasons for the hypothesis that the Philippine Islands are the peaks, mountain ridges, and tablelands of a submerged continent, which in a very early geological period extended to Australia.

The geology of the Philippine Islands is to a very large extent a mere matter of conjecture. Their conformation, and the exuberantly luxuriant tropical vegetation render surveys and explorations more than ordinarily difficult. Only a few districts have been cursorily surveyed and reported on, and of one island only, Cebu, has a manual been published. Its author, the distinguished Inspector General of Mines in Manila, Sr. Enrique Abella y Casariego, is doing his best to throw light on the darkness of Philippine geology.

The active operations of the Philippines Mineral Syndicate are at present confined to a district in the eastern part of Luzon, where the following formations have been observed, viz.:—Groups of chloritic slates, diabase and gabbro, eocene limestone and recent formations with marine fossils.

Almost everywhere in the islands are the results of volcanic forces in evidence, although the number of active volcanoes is small. The volcanoes, active and extinct, are grouped in two lines, running approximately east and west. Earthquakes are not infrequent, and the buildings are designed to resist them. The more violent seismic disturbances appear to be confined to certain centres, among which the neighbourhood of Manila, the capital of the islands, situate in Luzon, seems to be prominent. The mining concessions of the Philippines Mineral Syndicate (Limited), of London, which are scattered over an area of several hundred square miles in the east of Luzon, have in two years been visited by only one very slight shock, which passed off without the smallest inconvenience or damage. The orography of the group is very complicated. In a general sense, the direction of the chains of mountains is north and south, with occasional deflections to east and west. The highest mountain in the group is Apo, in Mindanao, with over 9000 feet, whilst Halcon, in Mindoro, reaches nearly 8900 feet, and Majon, in Luzon, exceeds 8200 feet.

The Archipelago lies between 4°40 and 20° N. lat., and 116°40 and 128°30 E. long. The seasons are divided into hot and cool, or wet and dry, and vary according to the aspect of the country. Regions exposed to the S.W. monsoon have their wet season, whilst on the other side of the mountains people enjoy the dry season. The rainfall is not excessive for the tropics, nor is it continuous, for occasional breaks lessen the discomforts of the wet season. The climate is very healthy for the tropics, and diseases—e.g., yellow fever—are unknown.

The bulk of the natives are of a race akin to the Malays, though pure Malays are only settled on the south coast of Mindanao and the neighbouring islands, where at times they give a little trouble to the authorities. In the interior of Luzon and some of the other islands the remnants of a race of natives of undoubtedly Papuan origin are found, still as untamed, and roving through the forests, as the Spaniards found them over 300 years ago. They, like their Australian kinsmen, fly from civilisation and succumb when forced into contact with it. A very interesting account of the inhabitants is given by Mr. Palgrave, late Her Majesty's Consul in the Philippines, in an article in the Cornhill Magazine, entitled "Malay Life in the Philippines."

Mr. Palgrave speaks in glowing terms of the fertility and beauty of the Eastern Isles, the prosperity and comfort of the inhabitants, and speaks in laudatory terms of the methods of Spanish Government there, and the civilising and refining influences of religion on Malays of the Philippine-Christian type. "Dull indeed," he says, "must be his soul, unsympathetic his nature, who can see the forests and mountains of Luzon, Queen of the Eastern Isles, fade away into dim violet outlines on the fast receding horizon, without some wistful remembrance, some pang of longing regret. Not the Ægean, not the West Indian, not the Samoan, not any other of the fair island clusters, by which our terraqueous planet half adorns her dreary expanses of grey ocean and monotonous desert elsewhere, can rival in manifold beauties of earth, sea, and sky, the Philippine Archipelago. Pity that for the Philippines no word limner of note exists. The chiefest, the almost exceptional spell of the Philippines is situate, not in lake or volcano, forest or plain, but in the races that form the bulk of the island population. I said 'almost exceptional,' because rarely is an intra-tropical people a satisfactory one to eye or mind. But this cannot be said of the Philippine Malays, who, in bodily formation and mental characteristics alike, may fairly claim a place not among the middling ones merely, but almost the higher names inscribed on the world's national scale. A concentrated never absent self respect, an habitual 'self restraint in word and deed, very rarely broken through when extreme provocation induces the transitory but fatal frenzy known as 'amok,' and an inbred courtesy, equally diffused through all classes high or low, unfeigned decorum, prudence, caution, quiet cheerfulness, ready hospitality, and a correct, though not inventive taste. His family is a pleasing sight, much subordination and little constraint, unison in gradation, liberty not license. Orderly children, respected parents, women subject but not oppressed, men ruling but not despotic, reverence with kindness, obedience in affection; these form a lovable picture, not by any means a rare one in the villages of the Eastern Isles. The villagers' houses, some large, some small, wood or bamboo, two storeyed or one, mere huts or spacious dwellings, according to the fortunes of the inmates, are dotted here and there in an unsymmetrical row among the trees; but all have a comfortable, a cosy look, suggestive of sufficiency; many of them, white painted with stripes green or blue, rarely red, and occasionally a flower pattern or fanciful scroll work to enliven them more. Eight million natives, more or less, inhabit the Philippines, and yet scarcity is of rare occurrence; famine unknown. 'Enough and over, enough for ourselves, and over and above for our neighbours,' is the fact-spoken motto of the colony; and of how many other European colonies can this be said?—of any? Of all tropical lands, all tropical races that it has been my lot to visit, none will have left a pleasanter, a more heart-satisfying memory than the Philippine Archipelago, the home of the half-civilised Malay." Such are, in brief outline, the people amongst whom British enterprise now introduces modern mining methods.

It may interest the readers of this Journal in a future article to learn what the old mining methods in the Philippines were like, and also the general conditions, topographical and otherwise, to which the pioneers of British enterprise have to adapt themselves.

THE WUNTHO GOLD FIELDS.—We are informed from a reliable source that the recent newspaper reports as to the existence of extensive gold deposits is purely a myth. Gold does exist in small quantities throughout the Wuntho State, where the natives wash the alluvial gold-bearing deposit in shallow round troughs. These washings are generally carried on in the beds of hill streams and during the rains. These troughs are manipulated by experts on the surface of the water by which the dross earth is separated and washed off, leaving the gold dust behind. These washings are now being carried out, and seldom does an individual obtain more than one tical of gold in a month. Dr. King's recent report has so far satisfied Government that no leases will be granted for prospecting in that neighbourhood.—*Indian Engineering.*

MEETINGS OF MINING COMPANIES.

CROWN REEF GOLD MINING COMPANY.

Dividends satisfactorily maintained.

(From the South African Mining Journal.)

THE sixth annual ordinary general meeting of shareholders in the Crown Reef Gold Mining Company was held in the Board-room, City Chambers, Johannesburg, on June 19, Mr. W. H. ROGERS presiding. There were also present—Messrs. Lionel Phillips, C. Hanau, R. O. C. Lys, J. W. S. Langerman, A. Goz, E. Birkenruth, O. Beit, R. Goldman, H. A. Rogers, A. A. Erdal, and F. Raleigh (secretary).

The CHAIRMAN, in moving the adoption of the directors' report, balance sheet, and profit and loss accounts, said: "The directors' report and accounts have been in your hands for the past ten days, and you have thus had every opportunity of considering the results obtained during the year ended 31st March last. Before moving the adoption of the report and accounts I would like to refer to the results of the company's operations during the past year, and our future prospects. We commenced the year with a credit balance on profit and loss account of £32,044 0s. 11d. The net profits of the past year amount to £82,253 9s. 4d., which, with the credit balance before mentioned, makes up a total of £114,297 10s. 3d. Out of this sum dividends Nos. 10 and 11, of 25 per cent. each, were paid for the half-years ending 31st March and 30th September, 1893, and with £6000 carried to reserve fund amounted to £66,000. The sum of £3878 12s. was carried to working capital account, being the balance of the proceeds of tailings sold under contract to the African Gold Recovery Company. These deductions left the sum of £44,118 18s. 3d. to the credit of profit and loss account at the end of the past year. Since then dividend No. 12, of 25 per cent. has been declared for the half-year ending 31st March last, and will be paid out on the 27th inst.—eight days from now. This last dividend brings the total dividends paid by the company during its existence of six years up to 219 per cent., representing £245,900 sterling. It is very satisfactory to note that the total profit earned during the past year is the company's best record, exceeding that of the previous 12 months by £10,965 0s. 5d. The working expenditure per ton exceeds that of the previous year by 7s. 4.2583, and this increase is accounted for, as will be seen by the general manager's report, by the charge of 6s. 1.036d. incurred during the past year for cyanide expenses, which in the previous year did not exist, and owing to the change in the mine—as depth is attained—going from soft milling ore to hard blue. The company's operations have been carried on during the past year on a more extensive scale than hitherto, owing to the construction of the new works. These new works enable the company to mine and treat from 16,000 to 18,000 tons of ore per month. Full details of the work will be found in the general manager's report, and I venture to say that the Crown Reef Mine is now equipped with mining, milling, and cyanide plants second to none in the world. Your directors, acting under the advice of their consulting engineer, have spared no expense in securing the best and most approved machinery obtainable, involving an outlay of about £200,000, and are convinced that the economical results which will be obtained therefrom in the future will fully warrant the expenditure. As you are aware, the 120 stamp mill only commenced operations early in March—that is, the last month of the financial year. It was intended by the directors to keep the old 60 stamp mill working as well as the new stamps, but owing to the high crushing capacity developed by the new mill (over 5 tons per stamp per day), and in consequence of the development of the mine being somewhat behind hand to keep as many stamps in operation, it was considered advisable to shut down the 60 stamp mill, and to carry on crushing operations with the 120 stamp mill only. When development is sufficiently advanced the board may start the 60 stamp mill again, or add another 40 heads to the new mill. The report before you deals with the company's operations to 31st March last, and in order to bring the results to a nearer date I may say that the profits for April and May amount to £21,507 19s. 10d. for the two months. The footage of development work for this period is 2597½ feet, and the tonnage of ore exposed amounts to 49,158 tons against 34,327 tons milled, which shows that a vigorous policy of development is being pursued, and that substantial profits are being earned. The progress of the three main shafts at date is as follows:—No. 1 main shaft, 85 feet below the fourth level, equal to a vertical depth of 421½ feet. No. 2 main shaft, 74 feet below the fourth level, equal to a vertical depth of 389½ feet; and the main incline shaft is 64 feet below the fifth level, equal to a vertical depth of 491 feet. The development of the fourth level to date aggregates 5531 feet, which practically completes one half of this level. The directors' and general manager's reports, which are before you, are as full and complete as it is possible for them to be made, and give complete details of the costs and results obtained in each department. Before leaving the subject of the past year's operations I would refer you to the matter of the company's working capital. The amount expended and yet to be expended on the new works exceeds the working capital provided by £92,346 12s. 1d. This sum your directors propose to pay out of profits without interfering with the regular dividends of 50 per cent. per annum, instead of issuing debentures or increasing the capital of the company. After the debt has been liquidated the whole of the profits earned will be available for shareholders. I stated at a previous meeting that our profits would probably reach to £150,000 to £180,000 per annum. Perhaps we have not come up to those figures yet, although for the month of April our profits amounted to £14,000, but I think in the near future we shall attain to my estimate. I further stated at the meeting referred to, that for the next six months we should be able to pay a dividend at the rate of 50 per cent. per annum, and I thought for the following six months a higher dividend, and I do not see any reason to depart from the statements I then made. I may mention that the whole of the board, with the exception of one member, agreed with the policy of the finance committee—viz., that instead of raising the capital of the company or issuing debentures it was thought best by the majority of the board to pay for the new works out of profits, a course which would for a time keep the shareholders from receiving higher dividends. I think the member of the board I refer to will say a few words later on. If we were to issue debentures for a certain amount, bearing interest at the rate of 6 per cent. per annum for 10 years we should pay in interest £26,400, or, if on the other hand we were to increase our capital by £10,000 we should have to pay dividends on such increase of capital. The tonnage of ore treated during the past year was 124,639 tons. This brings the total tonnage of ore treated in the six years of the company's existence up to 442,556 tons, which have produced 249,906 ounces 18 dwts. 9 grains of gold, realising, with tailings and concentrates, &c., sold, the sum of £921,900 1s. 4d., at a total cost (including depreciation) of £623,467 4s., leaving a profit for the six years' operations of £298,432 17s. 4d. This profit has been dealt with as follows:—Dividends paid, including No. 12 payable on 27th inst., £245,000; transferred to reserve fund, including transfer on payment of dividend No. 12, £21,113 19s. 1d.; transferred to working capital, £20,000; balance to credit of profit and loss account, £11,418 18s. 3d. The tonnage mined to date has exhausted less than 2½ levels, and if the value of the gold obtained by the African Gold Recovery Company in the treatment of the 100,000 tons of tailings, which were sold to them under contract, be added to the value obtained by the company, we find that the tonnage mined to 31st March last, representing less than 2½ levels, has realised over one million sterling. This fact speaks well for the future of the mine, especially when it is considered that the gold saving plant recently installed extracts nearly 90 per cent. of the assay value of the ore. In regard to the company's future prospects, I may state that the assays now being obtained from the lowest workings in the mine, where development works only are being carried on, indicate an improved grade of ore, and lead your directors to believe that increased returns will be ob-

tained when stoping is extensively carried on in the fourth and fifth levels. The policy of working in the mine is the same as that always pursued—namely, the mining and milling of equal portions of the two reefs; the main reef leader and the south reef. It is a matter of regret to your board that the yield obtained in the mills during the past year has fallen 1 dwt. 2.538 grains below that of the previous year, and the manager attributes this decrease to the lower grade ore produced from the third level workings. In regard to this decrease, I must tell you that in the proximity of our third level the reefs change from soft free milling ore to hard blue, and it is pretty well known on the Rand that, where the ore changes from the soft free milling ore to the hard blue, a poor zone comes in. We are evidently in the poor zone. I think I may state that it is an accepted fact on these fields that the ore of the level in which this change occurs (and it occurs in every mine) is found to be of lower grade than the levels above, and that as mining is carried on below the level in which the change occurs the grade of ore improves. This fact is borne out in our mine by the improved assays which I have just referred to. Our general manager estimates the assay value and widths of the reefs on the 4th level now being developed as follows:—Main reef leader, 1 ounce 8 dwts., 2 feet 8 inches; south reef, 2 ounces 6 dwts., 2 feet 6 inches. With these encouraging indications, your directors believe that the company's prospects are very promising, and that increased profits will be earned in the near future. I may point out that an increase of 1 dwt. per ton in the gold won means an increased profit to the company of over £3000 per month on its present monthly crushing of 17,000 tons. Another item on which I congratulate the shareholders is the fact of the company having obtained by purchase the freehold of their title to the Mynpacht from the Langlaagte Estate. This was secured at a cost of £26,000. The company's Articles of Association have also been amended, and are now upon a workable and proper basis. A printed copy has been forwarded to each shareholder. The assets in the balance sheet are represented by excellent value. Large sums have been written off from time to time for depreciation, and the values stated are well within the mark. Your directors have acquired the mill site claims (43½) at a cost of £2587, and I feel sure shareholders will be pleased with the purchase when they know the value of their deep level ground. The 43½ claim were distant 3500 feet from the outcrop of the reefs, and they are regarded as important and valuable assets. Another question which is still *sub judice* is that relating to water-rights and bewaarplaatsen, as to who has the right to the minerals beneath them. I hope when we meet next year that I shall be able to report that this question has been practically decided in favour of the surface-holder. If so, another large item of value will be added to the company's assets. Since the date of the report, your directors have decided to issue bearer share-warrants, to such of the company's shareholders as may desire to have them, instead of the ordinary share certificates. There is one little thing I should like to point out to the meeting. On going through our wages sheet I have found that we paid last year something like £70,000 or £75,000 in wages, which is more than a quarter of our receipts from the gold won. We all know that the head of this State is very fond of saying that all the money is going out of the country, but I think a fact like this, and remembering that the Crown Reef is only one company that is paying wages, is sufficient to show that the statement requires a little discounting. The Chairman then read the report of the auditors—Messrs. D. M. Kisch and Fred J. Moller—which stated that they had found everything correct and in order, and that the books continued to be kept in a systematic manner. In conclusion, he (Mr. Rogers) referred to the efficiency of the general manager, secretary, and staff of the company, and said everything was going on splendidly. He thought shareholders would in a very short time see that the policy pursued by the directors was the correct one. He then moved:—

"That the directors report, the balance sheet, and profit and loss account to 31st March, 1894, be received and adopted."

Mr. A. GOERZ said he had much pleasure in seconding the adoption of the report and accounts. The Chairman had stated that one of the directors did not fully agree with the decision of the majority of the board with regard to the financial arrangements. It was not his intention to speak on the subject, as he was fully prepared to give way to the majority of the board, but after the Chairman's reference to the matter he thought he was obliged to say something. The amount spent on capital account was much higher than was originally provided for on that account. There was, for instance, the additional plant, the erection of which was not contemplated at first when the working capital was provided, and then they had had a difficulty in the mine with a fault which somewhat increased the expenditure, and the sum total of the whole business was that they had exceeded the expenditure on capital account by no less than £92,000. It was not the intention of the board to distribute that amount over a long period by issuing debentures, or to increase the capital of the company, but to take it out of the profits earned instead of distributing them in dividends amongst the shareholders. The £92,000 would give to shareholders a dividend of about 77 per cent. He was aware that the opinion was prevalent abroad that Rand dividend-paying companies ought not to increase their working capitals any further. If new appliances were discovered by which expenditure in mines could be considerably decreased, and the revenue increased, he thought the meeting would be bound to adopt the new system, and if the working capital provided was not sufficient for meeting the expenditure on account of the new plant, then he thought companies would be fully justified in providing the necessary funds out of profits. They had had some expenditure in the Crown Reef which could not have been foreseen when their reserve shares were sold. For instance, they had bought the freehold of their title, and acquired other claims and water rights, all of which had considerably increased their expenditure, and if in order to meet their expenditure the number of the shares of the company had been increased, such new shares being offered to the shareholders, the shareholders would have derived the whole of the benefit. But in the event of the amalgamation of the Crown Reef Company with any other company—there was no scheme before the board, nor was there any probability of any amalgamation—but should there be any such amalgamation within the next three, five, or ten years, the shareholders of the company joining the Crown Reef would benefit by the plant which the Crown Reef had erected out of profits, and which to his mind belonged entirely to the shareholders of the Crown Reef. He simply expressed those views because they were also the views of some other shareholders.

Mr. LIONEL PHILLIPS said he would also like to say a word with reference to the matter mentioned by Mr. Goerz. He thought under ordinary conditions it might be well perhaps to raise money for the purpose of paying back the sum taken out of profits and devoted to capital account. But in the special case of the Crown Reef it must be borne in mind that the money had already been spent, and that past shareholders had already paid that money. He did not think it desirable, therefore, now to raise funds for the purpose of benefiting shareholders to-day who were not shareholders at the time the money was spent, and saddling the company with additional capital. The board went into careful calculations over the matter, and found that by raising a loan of £80,000 at 6 per cent., and redeeming it in 10 years, the company would be put to an expenditure of £26,000. Of course the creation of additional shares would saddle the company with additional capital on which they would have to pay dividends. He thought they had only to look forward to continuing with the present small dividend for about another year, when they would be out of debt and in a position to distribute the whole of the profits amongst the present shareholders. He, therefore, felt particularly jealous about creating further shares, and he felt sure that those who had borne the brunt of the past expenditure would not be averse to the continuance of the small dividends for a short time longer, with the practical certainty of enormously increased dividends in the near future. There was one other matter which he wished to touch upon, and that was this. Although the Chairman referred to the decreased value of the third level, and emphasised the increased value of the fourth level, he did not show them what a very splendid return had been obtained by the company since its formation. Anyone referring to the report would find that 442,556 tons of ore had been milled, and yielded 221,633 ounces 1 dwt. 9 grains, or an average of 10 dwts. 0.355 grains per ton. If they

took into account the amount of tailings treated up to date then the total product reached 11½ dwts. per ton. They must bear in mind that although 442,556 tons of ore had been treated, the company had only treated 250,000 tons of tailings. If they examined the expenditure of to-day they would find that there was every probability of decreased costs, and that for the last two months the expenditure had gone down as low as 23s. 4d. average. The cost of the cyanide treatment, which he thought was a decreasing cost every day, amounted to something like 5s. Therefore, the whole of the expenditure on the present basis of the Crown Reef was something under 29s. per ton, and he thought they might look forward with a practical certainty to a decrease in those costs. The product of the company had been worth 40s. per ton, the cost of production was 29s. per ton, so that with the decreasing costs they could confidently expect, he thought they might confidently look for the time when they would make a profit of something like £14,000 a month. He thought it desirable to draw special attention to those figures. With regard to the third level, he could only bear out what the Chairman had told them, from his intimate acquaintance with other mines. It was a fact that at about the locality of the beginning of the pyritic rock the ore was certainly poorer, and it was one of these things that would be disquieting, probably, had they not ample evidence that the reef below that level was better than the average above it. Under all the circumstances, he thought there was a prospective probability of the results being slightly better in the future than they had been in the past. Mr. Goerz had referred to some impossible amalgamation. He would like to say this, that there was not the slightest intention or possibility of any amalgamation, and he thought Mr. Goerz only used the argument to illustrate his remarks.

Mr. GOERZ said that was just what he intended to do. He merely referred to amalgamation as a possibility.

Mr. HANAU quite agreed with the policy of the board in not increasing the capital or issuing debentures to meet the increased expenditure; but he thought it a great hardship on present shareholders that the entire sum should be paid out of one year's profits of the company. He thought if the board could manage to arrange to pay off the liability, say in three years, in instalments of £30,000 a year, the shareholders would be pleased, and would compliment the board on such an arrangement. Shareholders had every reason to be satisfied with the efforts of the board, and he thought that if there was a recommendation from that meeting to the board, that they should make such an arrangement as he had referred to, that the directors would endeavour to act up to it.

The CHAIRMAN said he thought what he had mentioned with regard to the dividends shadowed forth his views as a member of the board. He said that after a certain time increased dividends might be paid.

The motion for the adoption of the reports and accounts was then put to the meeting and carried unanimously.

On the motion of Mr. HANAU, seconded by Mr. LIONEL PHILLIPS, Messrs. A. Goerz and R. O. G. Lys were unanimously re-elected directors.

Mr. O. BEIT proposed that Mr. D. M. Kisch and Fred J. Moller be re-appointed auditors for the ensuing year, and that the remuneration for their past year's services be 75 guineas each.

Mr. BIRKENBUTH seconded the proposition, which was unanimously agreed to.

This concluded the business.

UNITED LANGLAAGTE GOLD MINING COMPANY.

The scheme of reconstruction adopted.

(From the South African Mining Journal.)

An extraordinary general meeting of shareholders in the above company was held on June 26th, at Bettelheim Buildings, Johannesburg. There were present Messrs. J. L. Bilbrough (Chairman), G. Imroth, Hull, Wagner, L. Grabame, Dalrymple, S. Farrar, C. S. Goldman, F. Mosenthal, Gray, G. Sonn, G. Rouliot, O. Beit, S. Thompson, W. Detellbach, C. T. Thompson, and J. G. Hamilton (secretary).

The CHAIRMAN announced that there was a sufficient number of shares (69,802) represented to proceed with the business of the meeting. He would, therefore, call upon the secretary to read the notice convening the meeting.

The notice (accordingly read at this stage) stated that the meeting was called for the purpose of considering, and if deemed advisable of adopting (either with or without modification), a certain proposal which has been made to the directors for the reconstruction of the company. The proposal provides:—

1. That the present nominal capital be reduced from £100,000 to £62,500, represented by 62,500 fully paid up shares of £1 sterling each, which shall be issued to holders of the present shares, in lieu of their existing holdings, being at the rate of five new for eight old shares.

2. That the capital (so reduced) shall immediately thereafter be increased by the sum of £87,500 sterling, represented by 87,500 shares of £1 sterling each, and that such 87,500 shares shall be dealt with as follows:—

(a) 30,000 shall be offered to the shareholders of the company at par in proportion to their respective registered holdings of shares, there being a guarantee to the company by the proposers of the reconstruction to purchase at par the whole or any part of such 30,000 shares as shall not be taken up by shareholders.

(b) 36,000 shares shall be applied to the purchase of certain 46 claims (more or less), being the deep level of the claims now held by the company.

(c) 21,500 shares shall be held in reserve for future disposal by the directors, but the proposers of the reconstruction shall, in consideration of the guarantee above-mentioned, have the option to purchase 17,500 of such reserve shares at par at any time within 12 months from the date of the registration of the supplementary Articles of Association.

The following circular, dated 31st May, and addressed to the shareholders, was laid on the table, viz.:—Gentlemen: From the accounts submitted to you at the general meeting of the 30th March last you will have observed that a considerable expenditure had been incurred during the preceding six months upon mine development, and that, mainly in consequence of such expenditure, the financial position of the company at the end of the previous half-year was not of a satisfactory nature. During the three months to the present date the development of the mine has been continued with the greatest despatch, driving upon the third level having been carried on with rock drills, east and west, as quickly as possible, and, in addition, the main vertical shaft, main incline shaft, and three winzes are now rapidly being sunk to the fourth level. In consequence of the backward state of the development, as mentioned in the report last laid before you, the company's 60 stamps have run for half time during the period; and the output has, as a result, only about covered the costs of the work, exclusive of development charges. The condition of affairs rendered it imperative some two months back to effect a loan of £10,000 from one of your directors, a loan which has since been repaid out of the £13,750 received from the Langlaagte Royal Gold Mining Company in respect of the freehold of ground held by that company under license upon your estate, and a further loan of £2000 which still remains to be met under due date. As the expenditure under the head of mine development will necessarily remain high for some time to come, it follows that the balance of cash now remaining on hand will ere long be exhausted. As a consequence of the lack of the necessary funds, the erection of the large cyanide plant contemplated by your board has not yet taken definite shape. The tailings from the ore now going through the mill average from 5 to 6 dwts. per ton in value; and it will, therefore, be readily apparent to you how absolutely necessary the erection of such a plant is at the earliest possible moment. A proposal has been made to the company in connection with the acquisition of the Deep Level claims, some 46 in number, lying imme-

diately south of the mine, the present life of which is estimated at from 10 to 12 years only. The desirability of securing this ground is shown by the fact that the mine would be enlarged from one of three claims to one of eight claims deep. The purchase of this block could, of course, be allowed to stand over for the time being; but as circumstances generally point to an appreciation rather than a depreciation in the value of dip claims, the probability or rather certainty of a higher figure eventually to be paid for their acquisition must not be lost sight of. From the foregoing it will be seen that energetic and extensive development; a cyanide plant of sufficient capacity to keep pace with the full strength of the mill; the acquisition of the deep levels; and the security of the financial position, are all absolute necessities towards placing your company upon a sound and satisfactory footing. To ensure that position your board beg to submit a scheme of reconstruction recently proposed to them; which scheme, after the fullest and most careful investigation, they now, with a strong recommendation for acceptance, have the honour to lay before you for your most favourable consideration. As you will observe, the proposal provides for the acquisition of the dip claims, and for the supply of ample working capital to enable the company to thoroughly develop its property, and to erect the necessary works to enable it to secure the highest possible return from the ore treated.

Enclosed you will find a form of proxy which, in the event of your being unable to attend the special meeting personally, I shall be glad to have returned to me at your earliest convenience duly signed and witnessed. (Signed) J. G. HAMILTON, secretary.

The CHAIRMAN said that although the meeting had been called for the special object of reconstructing the company, he would like as briefly as possible to refer to the settlements that had lately been made with the Langlaagte Royal and the Rand Mines. As soon as the board knew that their Mynpacht was threatened they took the necessary steps to protect shareholders' interests. The two companies that disputed these had induced the Government to proclaim the mine in question, but the proclamation was opposed by the board and set on one side as illegal by the High Court. A compromise was afterwards effected with the Langlaagte Royal Company, who paid them £13,750 and thus obtained the freehold of 104 claims. It was only at the very last moment that negotiations came to a conclusion with the Rand Mines Company; just before going into court, the matter was satisfactorily settled for the sum of £25,750; and with that was purchased the freehold of 313 claims. The shareholders could congratulate themselves on these settlements, which were very satisfactory—very much better than going into court and risking the issue. The board had thus recovered nearly £40,000; but the expenses, witnesses from the Paarl, and so on, had been so heavy that shareholders would not imagine that they had £40,000 to spend on developing the mine. As to the proposed reconstruction, he was quite sure it would be in their interests to adopt it. The time for ignoring deep levels was past. According to the estimate of their manager the life of the mine would be about ten years, but with the acquisition of the deep level claims its life would be almost unlimited. Regarding, also, the working capital it was absolutely necessary to have more for the purpose of erecting cyanide works and properly developing the mine to the fourth level; also for the putting down of new hauling machinery. All this would run into £30,000 or £40,000. Then the mine would be in a proper and efficient condition. One thing that had been suggested by some shareholders was that if the company required money they should borrow it. He, however, thought it a very unsatisfactory thing for a company to borrow money, and although their company had borrowed in the past they had only been able to repay it by negotiating a new loan when their property was in jeopardy. He, therefore, thought they should not run the risk of borrowing the money. If the settlement with the Rand Mines had not been arrived at, the company would have been in a very critical condition; and if the case had gone against them, their company would have been in a plight. The reconstruction scheme was provided for at a time when the company was in a very peculiar position, and he did not think it would be fair, now that they had a little cash in hand, to throw over the scheme. Some objection had been raised to the option over the reserve shares, but as the reconstructors guaranteed over £30,000 it was only fair to give it to them. Briefly, the position was that their company, with £100,000 nominal capital and very little cash in hand, by the reconstruction became a company with a nominal capital of £150,000, with £30,000 additional cash in hand and 21,500 shares reserved. This practically meant that the new capital of £50,000 would be almost all cash, or its equivalent in reserve shares. Added to that was another very important item; they would have 46 claims extra. On looking carefully into the matter he thought they would find the directors were right in supporting the scheme, and he had great pleasure in moving its adoption. He would, however, like to say that one of the directors the only one who was not in accord with them, had written protesting against the scheme. He would now ask the Secretary to read the formal terms of the scheme, and afterwards Mr. W. P. Taylor's protest.

The SECRETARY read the documents referred to, Mr. Taylor's letter being as follows:—

On behalf of myself and the enclosed proxies, I hereby protest against the reconstruction of the company, and confirm my protest already lodged at a meeting of the directors. In my opinion there is no necessity to purchase the deep level claims for years to come; also the company does not require to have its capital reduced, and such reduction is unfair, unnecessary, and against the interest of the present shareholders, being indeed to the direct double advantage of the vendors of the deep levels. As I have before stated, the offer of reconstruction was made at a time when the settlement of the lawsuit with the Rand Mines was *sub judice*, and I pointed out in my protest, as a director, the unfairness of considering a proposition when the company was in the probable position of receiving sufficient capital from the Rand Mines (Limited), to carry out its work, and the company should not be pledged until the decision was known. What I predicted has taken place. The company has gained its suit, and the reconstructors have the advantage of the company's improved position if the scheme is carried. Considering that the company has assets in works, machinery, buildings, and cash including the Rand Mines payment, to the value of over £90,000, and the present shareholders are only getting 62,500 shares, it follows that these shares will be at once worth over 30s., and the 36,000 shares going to the vendors of the deep levels will be worth £54,000, and this without reckoning the value of the company's ground and proprietary rights. Further, the reconstructors will have a call on shares at par which should be reserved for the benefit of the company. I consider the position of the company to be a good and sound one, with sufficient capital in hand for all requirements, and does not require any financial manipulation. I regret my inability to be present, but must request you kindly to have this protest read at the meeting, and have it recorded in the minutes of the meeting.—Yours faithfully, (Signed) W. P. TAYLOR.

With the letter there were sent 915 proxies against the scheme.

The CHAIRMAN said he had already referred to most of the points raised. Had the company not succeeded in obtaining compensation from the Rand Mines and the case had gone against them, the scheme could never have come before them at all. The figures given by Mr. Taylor were, he sincerely hoped, correct, for if the shares were really worth 30s. it would be a good thing for the directors who held large quantities. The proxies Mr. Taylor had referred to, although made out in his (the speaker's) favour, would be put against the scheme in the voting.

The CHAIRMAN then put the formal resolution embodying the scheme, and also one providing that the directors should have power to deal with any fractional parts of shares left over in the redistribution.

Mr. IMROTH seconded.

The show of hands was unanimously in favour of the resolution, and the CHAIRMAN announced that the total number of shares in the room, including proxies, was 70,417—of which number 7127 shares were put in against the resolutions—or a majority of 63,290 in favour. The required majority was 52,813, and he, therefore, declared them carried.

Mr. MOSENTHAL asked if he would be in order in referring to another matter.
The CHAIRMAN said it would not be in order, and the meeting then terminated.

EAST RAND PROPRIETARY MINES.

A forecast of future operations.

(From the South African Mining Journal.)

The annual meeting of this company was held at Johannesburg, on June 25.—Mr. Carl HANAU, occupied the chair.

The CHAIRMAN, in moving the adoption of the report, said that there should remain very little for him to add, as the engineer's, manager's and directors' reports had gone so fully into all details of the present position of the company, as well as the operations which had been carried on since the flotation. The reports dealt more fully with the mining operations than did any other reports ever issued to shareholders of gold mining companies in the past. The board thought it but right that detailed reports should be presented to them on that, the first, occasion when the board had met shareholders. The assets and operations of the company were so vast, however, that he should be failing in his duty if he did not again shortly review the operations of the past year. According to the contract with the trustees of the H. F. Syndicate, the East Rand Proprietary took over all assets and liabilities of that syndicate through which it became possessed of about 530,000 shares in the New Blue Sky, Comet, Cinderella, Agnes Munro, Driefontein, and St. Angelo Gold Mining Companies, and, roughly speaking, of 1000 gold-mining claims on the farms Vogelfontein, Driefontein and Leeuwpoot. The board during the past year had thought it expedient to increase the company's holding in some of the subsidiary companies, and had purchased in all 33,714 shares at the cost of £12,830 12s. 1d. On Leeuwpoot, as they would see from the directors' report, a number of claims had been abandoned, the reasons, therefore, being fully set forth. All their other claim holdings remained unchanged. They now held 563,488 shares in the outcrop or Main Reef Companies, costing £141,689, which was equal to holding four-fifths interest in 351 Main Reef claims, and in all the assets of the outcrop companies. They were possessed of 820 claims, 690 of which formed one solid, uninterrupted block of deep level claims, to the Main Reef outcrop claims, the distance from the outcrop varying from 350 to 750 feet. From this, and taking into consideration the large amounts of money paid for deep levels during the past year, and taking further into consideration the very satisfactory development on the outcrop companies, they would agree with him that they were possessed of very valuable property, which promised to give them enormous returns on the original outlay. It would be remembered that at the annual meeting of the H. F. Syndicate he spoke of millions when alluding to the value of their property. They might call him sanguine, though he was not sanguine any more; but he could assure them that his opinion, expressed then, was not alone unchanged, but had been considerably strengthened by the actual results shown by the development of the mines in which they were so largely interested. He considered that when crushing operations on a large scale were started on the Comet Company, the results shown would prove that company to be second to none on the Rand. His opinion was based on assays taken right through the mine, and, surely, with the development of 40,000 tons, one ought to be able to form a fair and reliable opinion of its value. Besides, they had 130 claims on Leeuwpoot, the value of which that day was problematical, but which in course of time might prove a very valuable asset. When mining operations were commenced on the Ginsberg Company the results were very encouraging. They then bought into the Ramsay Syndicate. Later developments proved the Ginsberg to be a first class mining property and the board then bought the remaining syndicate shares, and took transfer of the entire block. Through bore holes they had proved the existence of the Ginsberg reef in that property, and also had done so on the adjoining St. Angelo, the results from assays of which were very satisfactory. In the St. Angelo they held 144,416 shares out of a capital of £150,000, or practically the entire property. Their properties were of so vast an extent that it was difficult to give a clear idea of their value, but they might form some idea by comparing the size of the Ginsberg Company's property with the Ramsay and St. Angelo blocks. The Ginsberg stood at a value that day of, roughly, £100,000. The Ramsay and St. Angelo blocks as would be seen, were nearly double the size of the Ginsberg. Again, looking at the plan, they would see that the St. Angelo and the Ramsay blocks formed only about 1-20th of all their claims, the bulk of which were situated on the dip of these two blocks and the Comet and Agnes Munro Companies. Recently the board had decided to principally develop the properties on the most westerly end of the property, as in its opinion they would show good and practical results soon. It was true that to develop all their mines vast amounts of money would be required, but by the policy of the board the enormous financial strain would be considerably minimised. At an early date it was the intention of the board to reconstruct the Comet company, putting in all the dip ground right through to their most southern boundary, and supplying that company with ample working capital. The company when reconstructed would possess about 160 claims, and the mine, with 100 stamps at work, would have a practically unlimited life. The policy of first proving sections of ground to be valuable by actual development was going to be pursued in the future, and during the next year it would be definitely decided into how many subsidiary companies their vast properties were to be formed. In his opinion there would be, in the next two or three years, at least four companies working, which would employ a very large number of stamps. The reports dealt with the company's affairs up to the 30th April. Since then the Ginsberg Reef had been intersected in the new bore-hole in the Ramsay block, assaying 12 dwts. over 3 feet, and 20 dwts. over 17 inches. It had been decided at once to sink a main shaft as a first step towards mining operations on a large scale. It had been decided to build a large reservoir, capable of storing 25,000,000 gallons of water, and to guard against future scarcity of water, the board was about to enter into a contract with the Government for the use of one-third of the water in the large reservoir known as the Boksburg dam. The supply there during the driest seasons had never been exhausted. On account of the close proximity to the Boksburg collieries, they would be able to mill and mine cheaper than any other gold mining company on the Rand. Companies near Johannesburg had to pay about 21s. for coal per ton, while they had entered into a contract for the supply of their requirements at 9s. per ton. Altogether, the conditions were very favourable, and, with good management, the company ought to have a very bright future. By charging small monthly fees to subsidiary companies for secretarial and mine clerical work, and employing the services of only one manager and one consulting engineer, and by exercising the strictest economy, he was pleased to say that the expenses in connection with the working of the affairs of the company had been kept very low. It was regrettable that the profit and loss account showed a debit of £16,000, but that was quite natural, and, in fact, was quite unavoidable, as they had no source of revenue, and had to expend large amounts of money which in the balance sheet that day were not represented by actual assets. With regard to the financial position of the company, they had on hand by cash and sundry creditors, £30,665, which amount was quite sufficient for the carrying out of the works now in hand. An offer to refloat the St. Angelo Gold Mining Company with sufficient dip ground had been received from a very powerful London combination, but the board did not consider the terms satisfactory, and the offer was unanimously refused. A 10-stamp mill had been erected on the New Blue Sky property, and a test crushing had given the handsome return of an ounce to the ton. A test crushing of Comet ore was being made, and he felt confident of a return of 15 dwts., which would be quite good enough, as the test crushing was not made for show, but to ascertain what yield could be expected when the 40 stamps—which it was proposed to

erect at an early date—were at work. On completion of that test, one would be made from the ore of the Cinderella Company, and the board intended continuing that mode of procedure until test crushings of all the companies in which they were interested extending over three miles had been made. They would, perhaps, be disappointed that the company had not been floated for over a year, and no results in the way of dividends shown, but no gold mining company on the fields had paid dividends during its first year. He assured them that if they were patient they would be handsomely rewarded. In his opinion the company, together with the subsidiary companies, would become one of the largest gold producers on the Rand, and on account of the exceptional facilities for mining and milling, very big profits would be made when once milling operations were carried on on a large scale. The board entertained a very high opinion of the property, the directors being by far the largest shareholders in the company. During the past year Mr. George Farrar had carried out the duties of managing director without remuneration, and the thanks of shareholders were due to that gentleman in a very high degree for the untiring efforts he had used in their interest. Great praise was due to the manager, Mr. Angwin, and as soon as the company had arrived at that stage when it could give a fair return on the outlay, it would give him (Mr. Hanau) great pleasure to propose for that gentleman a much more substantial recognition of his zeal and energy than their thanks and appreciation, with which that day he must be satisfied. Mr. Frecheville, the consulting engineer, deserved their thanks, as, outside of his duties he had done good service by devoting a great deal of his extra time to the company's affairs. The board had been satisfied with the manner in which the entire staff had carried out its duties. As works on a large scale were now being carried out, and as, after that day's reports, they would be able to follow up the company's operations easily, it was the board's intention to issue quarterly reports, giving a full résumé of all operations of that and the subsidiary companies. At the wish of European, especially Continental shareholders, arrangements had been made for the issue of bearer shares, which would considerably facilitate dealings in the stock. In conclusion, he congratulated them on the very bright prospects of the company's affairs, and trusted that when next year the board had the pleasure of meeting them, the prognostications made by him that day would be shown to have been warranted.

After some desultory conversation as to the borehole on the Ramsay Block, the report and accounts were adopted.

The CHAIRMAN said the next business was to elect a director in the place of Mr. S. W. Jameson, who offered himself for re-election. As there was no other nomination before the meeting, he would declare Mr. Jameson re-elected. In connection with that matter he read the following letter which had been sent into the board by Messrs. Joel and Mayer and L. Ehrlich:—"Gentlemen, Mr. S. B. Joel is a large shareholder in the East Rand Proprietary Mines (Limited), and will accept a seat on the board if elected. We would recommend that at the first meeting of the board Mr. Joel be appointed a director of the company."—(Signed) Joel and Mayer. That recommendation he (the Chairman) stated would come before the board in the usual way. The next business was to appoint two auditors for the ensuing year. The retiring auditors were Messrs. Page and Anderson, and the meeting had to fix their remuneration for their services during the past year.

Messrs. Page and Anderson were re-appointed auditors, and the question of their remuneration left in the hands of the directors. There being no other business the meeting terminated.

CUMBERLAND LANDS, LIMITED.

The new management.—A vast and unencumbered property.

An extraordinary general meeting of the shareholders in the Cumberland Lands (Limited) was held on Tuesday, at Winchester House, the chair being occupied by Mr. S. LIPSCOMB SECKHAM.

The SECRETARY (Mr. L. C. Farebrother) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, I will endeavour in as few words as possible to explain the object of this meeting. You will remember at the last general meeting you were good enough to desire that I should continue to act as a director, and that I only consented to do so on condition that you appointed a committee to investigate for yourselves the position of the company. This you kindly did, and I think I may congratulate you upon appointing gentlemen who have thoroughly and honestly performed their duty. The result of their labours you have before you, and it is with a view that you should express your opinion on their suggestions that we are now met to-day. You have all had copies of their report. I do not propose to offer any comment on it, but rather leave it to you to determine if we as directors are to carry out as far as possible their recommendations. It appears to me there is little to be gained by referring to the past, except to profit by sad experience. I would rather direct all our energies to develop what is on all hands admitted to be a very fine property. Looking at the report we have received, there is one consensus of opinion, that under wise administration with a fair amount of capital, and worked on an honest and economical basis, it cannot fail to prove a very profitable and lucrative investment. At present I understand that our liabilities do not exceed £1000, and that we possess a valuable freehold estate of some 72 square miles, free from any encumbrance or charge whatever. You have from time to time received particulars of your estate, and we may, I think, rest assured that only good and practical management is required to make our shares rank in the market at their proper value. How is this management to be obtained? Certainly not by myself or my co-directors in London, without the aid of good Colonial local experience. To provide this we propose to send out one of the board to consult with good local authorities and take such steps as their practical experience recommends. Up to this time we have been unable to use this experience in consequence of the attitude taken by the representatives of the vendors, who (whether wisely or not I leave them to determine) have strongly opposed the outlay necessary to develop the property. That difficulty is now removed and by far the greater portion of the shares is now held by English shareholders, giving us on this side absolute control. You are aware they have been having very bad times in America, and even now are not much better than we as to depression of trade, but I do not consider that is a reason why we should wait longer, as the first and most important work we have to perform is the making of a branch tram or railway through the property to the ore banks. Without which communication, come what will, it will be impossible to develop or open up the property. We all know the value of good communications, and how utterly property is out of the market that is not in connection with the railway system of the country. The report deals so fully with what is necessary to be done that I do not propose to draw your attention to the several works proposed, except as to the important question of ways and means. There would not be slightest difficulty in raising the small sum required on the property; indeed, we have already offered to us unencumbered, a large sum sufficient for present purposes, but taking into consideration how we shall have to deal with the various materials and properties it is very desirable that we should not encumber the title to allotments by having any mortgage on the property if it can be avoided. At the last general meeting Mr. Clements started the idea of revenue bonds as a first charge; this commends itself much to your board as offering a really first class security without damaging the commercial credit of the company, and ought to be readily taken up by the shareholders. By so doing they will receive a good rate of interest for the advance, and at the same time be improving the value of their present holdings. So soon as arrangements are made on the other side for the making of the railway communication your directors propose to issue revenue bonds to the amount required for this and other purposes recommended by the committee. I think, perhaps, I ought to acknowledge the valuable services that have been rendered to the

company by Captain Steger, an American gentleman of undoubted position and experience, who has throughout rendered very valuable assistance in the recent troubles through which we have passed, and it will be through him that we hope Mr. Borradale will be able to negotiate the various business to be done. It is contemplated to try and get Captain Steger and another gentleman of equal position to act as a local committee, with whom the resident manager can keep in touch, and who will also exercise the supervision necessary, which it is impossible for a London board to have on any resident manager. There is one more matter, namely, the adoption of fresh Articles of Association for the management of the company. When the company was first established it was formed under table A, which in many respects is inconvenient. The Chairman concluded by moving the following resolutions:—

1. That from and after the confirmation of these resolutions, the Articles of Association be, and they are hereby repealed and annulled. Provided always that this repeal shall not affect the validity of any act, matter or thing made or done by or under the authority of the said Articles of Association before such repeal.
2. That the regulations produced to the meeting, and for the purpose of identification initialed by the Chairman, shall as and from the same time be, and they are hereby made the regulations of the company.

Mr. BORRADALE seconded the resolutions, which were carried unanimously.

The CHAIRMAN then moved a resolution adopting the report made by the committee, and expressing at the same time the thanks of the meeting for their services in investigating the affairs of the company.

Mr. CARDINALL cordially seconded the resolution, and said that when his attention was first drawn to the Cumberland Lands, he, knowing something of the United States, felt that the company, owning 46,000 acres absolutely unencumbered, would attain under proper management a considerable measure of success. The prospects of the company were fully set out in the report of the committee, and he wished to lay especial stress upon what had been said regarding agriculture, which, properly developed, he thought, would lead to most profitable results. There was little doubt that the board would be able to induce some young Englishmen to go out under their tuition, and after a period of probation to see if they were suitable young men they would be able to give the company security on their property. In his own experience he had known of young men going out in that way and doing extremely well. Once the projected railways, mentioned in the report, had been constructed the country would be sure to develop rapidly, and very likely a township would grow up.

Mr. J. L. BORRADALE cited an instance in support of the view of Mr. Cardinall had expressed as to the future of the agricultural operations of the company.

A SHAREHOLDER enquired whether there ought not to be a local board at the property to take the companies under their personal supervision.

The CHAIRMAN said it was proposed to establish one. A large shareholder who lived near the property would have another gentleman associated with him in the control of the company's business.

The resolutions were then put and carried unanimously, and a vote of thanks to the Chairman for presiding terminated the proceedings.

LION (MOZAMBIQUE) GOLD COMPANY, LIMITED.

Encouraging prospects for the future.—The Lion reef.

The first ordinary general meeting of the Lion (Mozambique) Gold Company (Limited) was held at Winchester House, on Thursday, the chair being occupied by Mr. G. TAVENOR.

The SECRETARY (Mr. Henry Richards) read the notice convening the meeting.

The CHAIRMAN said:—Gentlemen, your directors this morning have great pleasure in meeting you for the first time in connection with this company, which is the descendant of the Gold Fields of Mozambique. The Lion property is a property which has been so well reported on by our manager, Mr. Nines, in Mozambique, and his report has been so well endorsed by Mr. Alford, who represents in that colony the firm of Bewick and Moring, that your directors anticipate that in the future there may be a career of great success for the company. In regard to the working capital, £50,000, I may say that it has practically all been obtained entirely from private sources. No approach was made to the public for funds. Now, gentlemen, considering that we are living in times when all mining enterprises are under a cloud, and when the public confidence in the industry is not of such a character as would warrant any promoter going fearlessly to the public unless his venture were fully underwritten, the ready response made, especially by shareholders in the La Plata Company, to an appeal for the funds necessary to commence working shows both confidence in the property and a regard for the interests of the shareholders. My colleagues and I sincerely trust that they will have no cause to regret having assisted at the inauguration of the concern. (Applause.) You will observe by the map on the wall that the Gold Fields of Mozambique Company possesses a very large quantity of gold claims. Out of these claims you will see below on the left a series of reefs marked out called the Tiger property, belonging to them. On the right you will see another series of reefs called the Bettencourt property, while higher up is the Menzies property. Now, turning to the Lion map, we perceive that we possess 14 claims, each of which consists of 100 metres square measurement, which would equal 330 English feet. We possess, then, these 14 reefs, and as to their value I don't think I could do better than quote some extracts from Mr. Alford's report on this property, which will show you its exact position and nature. His report was written in October, 1893, and in it he says:—"The Lion property consists of 14 mining claims, each 100 metres square, and is situated on a sharp hill known as the Birthday Ridge, about 3 miles south of Massakessi Fort, and about 2 miles north of the main wagon road in the Munene Valley. A good stream of water issues on the plains, and runs down the northern side of the hill, the water never falling throughout the year. This, by the construction of a dam, would be made available for the plates of a small mill. The whole of the property, especially at the eastern end, is well wooded with small but useful trees, and there is also a considerable quantity of small bush which would furnish a temporary supply of fuel. In many places along the line of the claims are the remains of ancient workings, consisting of pits, now almost entirely filled in by heaps of debris, but the traces have been so obliterated during a long period of time that little information is to be gained from their inspection. Not much work has been done on the property, owing to the difficulties with which the manager has had to contend during the past season. The principle points to be noticed are as follows:—At the point called A on the map a small cutting about 8 feet deep has been made, exposing a mass of quartz about 3 feet in depth, striking north 40° east. The whole ground has been very much broken up and disintegrated by weathering. A sample of the quartz taken from this point has been sent to London for assay. At B the cutting also exposes a large mass of vein quartz, which may possibly prove to be a continuation of that found at A, and B the outcrop of a vein. The quartz shows gold in the pan, and a sample is sent herewith for assay. There is nothing definite to remark upon respecting the point D, but some of the quartz shows a fair prospect of gold upon panning. At E there is also a shallow cutting, and a quantity of dislocated vein quartz in the same disintegrated surface deposits as at B, some of which shows gold on panning. On the eastern end of the property there are quantities of flat quartz on the surface, which, in most cases, show gold in the pan, a sample of which is sent with this report to London for assay." That is what Mr. Alford says about this property, and he is a very cautious, painstaking mining engineer, who, if anything, certainly errs on the side of prudence. I have only quoted his report to show that, in his opinion, the Lion property certainly possesses possibilities of a character to justify our shareholders in taking an interest in it. There is little more that I can

say to you as to the recent advances. So short a period has elapsed since the inauguration of the company that we have not had time to receive an answer from Mr. Nines to the Lion Company's letter advising him to proceed working the property for the new company now possessing it. Recent communications received from Mr. Nines, however, have given his opinion, confirmed elsewhere, that the Lion should be one of the best gold producing properties on the field. Our capital will be husbanded with great care, and Mr. Nines is certainly a man we can rely on in carrying out our instructions in regard to the property. There is one other thing in connection with the property which I must mention, and that is the proposed railway. All those interested in Matabeleland and Mashonaland know that Mr. Rhodes has elected to find the capital for the construction of a continuation of the Barra Railway, so important does this additional communication appear to be to the colony. At present the railway only runs within some 60 miles, and all things which may be sent to the gold fields have to come by wagon, which makes them very expensive. By the end of the year, however, we expect that the railway will have advanced considerably nearer to our property, and so obviate the difficulties of the Fly Country. Soon we shall have communication throughout that country, and shall be able to get up all the stores which may be required with ease and facility and much less expense. As to the future business of the mine, you will not be surprised to hear that as soon as we come upon payable quartz and have commenced opening up our mines by the sinking of a shaft and other works, it will be necessary to have some milling accommodation for crushing. That time is, I think, within a measurable distance. From what I hear it is probable that an enterprise will be started by several influential men to work crushing mills to serve those mines which may not have mills of their own in actual working, and it is the intention of your board to utilise those mills for the present should they be started, so as to save the large amount of money which would be required for the erection of machinery. When our mining operations commence to grow and extend it will be for us to consider the expediency of having our own mills and our own cyanide plant. You are aware that we have a very capable mine manager, who will be our superintending manager. Labour is cheap and, I believe, plentiful, the situation will be adjacent to the railway, and the reports from the property are exceedingly encouraging. In fact, I do not know of any property in Mozambique which has been more encouragingly spoken of than our own, excepting perhaps Parady's Syndicate. The latter appear to have done exceedingly well, judging from the very high price at which their shares are quoted—some 60 per cent. or 70 per cent. premium—and the confidence which the shareholders repose in the concern. It appears to me, however, that the Lion is situated as favourably, and I do not see why our shareholders should not become in time just as satisfied with our own property. I hope that when we meet again we may have something of an encouraging nature to communicate to you. Perhaps I should mention that I have been asked by several of the La Plata shareholders to say whether they could not obtain some shares in the Lion. I have always referred them to the secretary. The La Plata shareholders have behaved very well to us, and have responded in the most liberal manner, and I hope they will not have any cause to regret the confidence they have placed in us.

A SHAREHOLDER enquired what the present remuneration of the directors was.

The CHAIRMAN replied £50 a year each.

The proceedings concluded with a hearty vote of thanks to Mr. Tavenor for presiding.

ALABAMA COAL, IRON, LAND, AND COLONISATION COMPANY, LIMITED.

Trade in Alabama.—A decrease in land sales.

The twelfth ordinary general meeting of the shareholders in the Alabama Coal, Iron, Land, and Colonisation Company (Limited) was held at Winchester House, on Wednesday, the chair being occupied by Mr. AUGUSTUS B. ABRAHAM.

The SECRETARY (Mr. Eugene Cox) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, the report has been in your hands for some time, and I do not suppose you wish it to be read. I ought to say a word, I think, as to the reason of the delay in holding our meeting, which is seven weeks after the usual time. That reason simply was that we were in hopes of being able to congratulate you on the fact that foreign pig iron and foreign coal would not be allowed to enter the United States duty free. There is, of course, a very great difference of opinion on this question, and some of the Democratic party—and especially those connected with ourselves—think that it would interfere very greatly with Eastern and Northern trade, for Nova Scotia iron would be introduced into all the Atlantic ports against Alabama iron, so that we should lose a good many of our markets in the north. Well, there have also been a very cogent set of reasons urged by one set of people in the south in favour of Free Trade, and by another set against it. We have thought, however, that under no circumstances—so far has the Alabama trade developed—could we be interfered with. The matter is, however, one upon which it is very difficult to form an opinion, seeing that politics are so much mixed up in it. We cannot help it, and we can only hope that whatever happens Alabama will be able to hold its own under all circumstances. There is no doubt that under the operation of the tariff the development of Alabama has gone on most successfully. The report which we have to lay before you is certainly an exceedingly disappointing one, and the first page of it, especially, gives me a very unpleasant text to enlarge upon. There it appears that we sold during the year no land in fee simple or mineral rights, and that we have only sold 4065 acres of surface rights for £13,485, at an average price of a few cents less per acre than we received last year. I don't think this is to be wondered at, especially after the statement detailed in the bold little brochure we have printed and circulated for the information of our certificate holders and shareholders. For commercial transactions, there has been up to the present no capital forthcoming, and we cannot reasonably expect that people would place money in what may be an unproductive investment in land, when there are so many ventures and undertakings which came into existence during the recent boom, and which have had to be suspended, but which would, in the event of an improvement, first claim attention. I hope that little book will be some satisfaction to the shareholders and certificate holders in showing that the people of the south are viewing matters without any dependency at all, and that, notwithstanding the severe crisis they have passed through, they are making extraordinary efforts to maintain the position of Alabama, and to attract the attention of Northern and English capital to their resources. Not only have the sales been very small, but the note collections have also been small, and together with the interest received on account of land sales have totalled only £19,711, as compared with £36,082 in the last year. This is to be accounted for by reason of the arrangement come to with the New South Mining and Manufacturing Company. They owed us \$66,500, and during the last two years we have been holding out hopes that the company would be able to make its payments. Since then, however, they have gone through liquidation, and are unable to raise funds for the purpose of payment, and at last we have come to an arrangement with some few who still remain in the district, the effect of which will be that we shall be remitted back to the ownership of all the lands sold, free of all the costs of foreclosing, while the £2000 paid on deposit will be kept by us as forfeited. There will, of course, be a deduction of \$66,500 from the amount of notes, while the lands we have in hand will be increased by the acreage upon which we have foreclosed. In point of fact at the present moment we hold 523,000 acres of land instead

of the acreage mentioned in the report. There are two items in the cash account of the American Company, which I think will be very gratifying to the shareholders. My friend, Mr. Schiff, you will remember, on a former occasion, said that there was a possibility of increasing rents being paid to us, and you will see on page 12 of the report that for rents \$1202 has been received, instead of the \$600 of last year. That is to say that the amount received in rents has been doubled. Then there is the dividend of the Standard Coal Company of \$700. That is the investment made by the American Land Company, and it has turned out exceedingly advantageous, and I noticed in perusing the report that the output of coal for that company was reported in May last as 650 tons per diem. (Hear, hear.) The result of the accounts is that there was a small amount of \$463, mentioned as remittances, or which we were willing should be treated as remittances, seeing that our work requires that payments should be made there, and to save the expense in exchange we have arranged that these shall be treated as remittances. The amount would have to be divided among three funds, and would yield only a very small amount to the bondholders and certificate holders, the fact being that it requires about \$3000 to pay a coupon, so that there is no good beginning there. With regard to the balance-sheet, I have a very few remarks to offer. It will be noticed that the share sinking fund is reduced, not only by the payment of a dividend, but also by the reserve of £1520 against depreciation on some of the American securities which we hold. Our auditors require that some allowance should be made, at least on the face of the accounts. We have taken the price at the end of the year, and it amounts to £1520. We hope next year that there will be a considerable improvement in American securities, and that our special securities will no longer suffer in the depreciation. Then as regards the bondholders sinking fund you see it is only £1618 10s. 11d., and that is not sufficient to pay a coupon. Then there is an item of sundry debtors, which, in point of fact, includes amounts, i.e., claim as against the American company for some costs incurred in a provincial sale which, I am sorry to say, never was completed, and that remains outstanding between us and them. Then the last item which I have to refer to is administration expenses, which are only £12 more than in 1892, although the interest on our investment is considerably reduced. I do not know there is anything more for me to say. So far as your directors are concerned, they have no fear whatever as to the result of the operations of this company. As to the shareholders, we have a fund large enough for the payment of dividends for the next six years, and as regards the certificate holders, our business is a business of liquidation, and we cannot help the depression which exists in the commerce of America. When we undertook this business 16 years ago we were hopeful as to the future, and, if that were so, how much more cause have we not to be hopeful now that the position of Alabama is so much improved in relation to pig iron, coal and cotton. The shareholders will be glad to know that the property out there is in good hands; so that when a turn in the tide comes we shall be able fully to profit by it. The Chairman concluded by moving the adoption of the report and accounts.

Mr. SCHIFF seconded the motion, saying that there was no doubt that the value of the company's assets was as great as it had ever been, and, that being so, and the management on the other side being excellent, he thought they might look for most satisfactory results in the future. (Hear, hear.)

Mr. AUSTEN: I suppose we have had the benefit of the £2000 which has been forfeited.

The CHAIRMAN: Yes; we should like a number of similar transactions.

The motion for the adoption of the report and accounts was then put and carried.

The retiring directors, Messrs. Abraham and Kirkwood, having been re-elected, and the auditors, Messrs. Price, Waterhouse and Co., re-appointed, the meeting terminated with a vote of thanks to the Chairman.

WHEEL BASSET.

Call of 4s. 6d. per share.

A 16 weekly meeting of adventurers was held on the mine on Tuesday, Mr. FRANCIS OATS presiding. The accounts showed—Debits, labour pay, £3478; supplies (including coal, £1179), £2122; bank charges, £48; stannary assessment, £4 7s.; total, £5673. Credits, 103 tons of black tin sold, £4292; other receipts made the total £4381, leaving a loss of £1292. The total balance against the adventurers was £1385.

The committee's report regrets that the returns for the past quarter show a reduction of 10 tons 15 cwt. 3 qrs. of tin, and £328 in amount realised. This is due to some extent to the machinery, which has given us a smaller quantity of tin stone. The quantity of tin stone stamped has been 4885 tons, as compared with 5473 tons last quarter. Our average produce has been 47½ lbs. to the ton, as against 46 lbs. in the former quarter. The reduction in the consumption of coal is owing to the smaller quantity of tin stuff stamped and the stoppage of the Cornish engine for several days. Our merchants' bills show an increase of £37, due to repairs of breakages and a supply of steel rails, which was urgently needed. The average price of tin sold during the quarter shows an increase of £1 3s. a ton, viz., £11 11s. 6d., against £10 8s. 6d. The loss of £1292 will require a call of 4s. 6d. per share, which your committee recommend. The usual analysis is appended.

Analysis for quarter.	This.	Last.
Tinstuff stamped	4885 tons	5473 tons.
Average produce	47½ lbs. per ton	41 lbs. per ton.
Labour cost	£3478 0s. 6d.	£3365 4s. 11d.
Cost of coal	£1179 11s. 6d.	£1253 4s. 1d.
Merchants' bills	£343 1s. 6d.	£375 12s. 2d.
Tin sold	103 tons 5 cwt. 3 lbs.	114 tons 3 cwt. 3 qrs. 24 lbs.
Average price	£41 11s. 6d.	40s. 6d.
Total cost	£5673 11s. 6d.	£5530 0s. 6d.
Total credits	£4381 11s. 6d.	£4690 12s. 5d.
	Increase.	Decrease.
Tinstuff stamped	14½ lbs. per ton	593 tons.
Labour cost	£112 15s. 7d.	—
Cost of coal	—	£73 12s. 5d.
Merchants' bills	£67 9s. 6d.	—
Tin sold	10 tons 10 cwt. 3 qrs. 22 lbs.	—
Average price	£1 3s. 6d.	—
Total cost	£135 11s. 3d.	£309 1s. 3d.

AGENTS' REPORT.—Gentlemen: The 230 and west is driving by boring machinery at £3 10s. a fathom, producing stones of tin but nothing to value. 230 end east on south part of lode, driving by boring machinery at £3 10s. a fathom, worth 20s. 230 end east on south part of lode worth £11 a fathom, driving at £1 a fathom and 3s. 6d. a ton. 230 end west of crosscut on south part of lode worth £12 a fathom, driving at £1 a fathom and 3s. 6d. a ton. A rise in the back of the 230 worth £5 a fathom, rising at £1 and 3s. a ton. A slope working in the back of the 230, south part of lode, worth £15 a fathom, working at 3s. 6d. a ton. Another is worth £10 a fathom, sloping at 3s. a ton. A slope working at the 230 is worth £18 a fathom, sloping at 3s. a ton. The 230 end west of mine is driving by boring machinery at £7 a fathom, lode poor at present. A winch sinking below the 230 is worth £12 a fathom, sinking at £7. We have two stopes in the back of the 230 worth £13 a fathom, each sloping at 4s. a ton. A slope in the back of the 180 is worth £8 a fathom sloping at 2s. 9d. a ton. The 170 end west of Grace's shaft is driving at £1 10s. a fathom, producing stamping work. Stope in back of 170 £12 a fathom, sloping at 5s. a ton. Stope in back of 170 £3, sloping at £3 10s. We have at present 12 men working on outwork, also four pitches working on tribute by eight men at 12s. in the £, standard £18 10s. per ton for tin. Total employed in every department underground, including shaftmen, timbermen, trammen, &c., and fillers, 151 men. We regret we have to show such a heavy loss on the quarter's working. The reduction of 10 tons of tin in our returns is very disappointing to us. We have had so many petty breakages during the quarter with our pumping machinery, the water being in our workings, that we have been unable to discharge our usual quantity of tin-stone.—WILLIAM JAMES, CHARLES OLEMONS, JAMES ANDREW.

The CHAIRMAN said it was more a matter of duty than of pleasure that they were there, as with tin at the present low price most of the Cornish mines are in the regrettable position of having a balance on the wrong side. In spite of efforts made to develop the mines by improved machinery, everything seems to have been frustrated so far as good results are concerned, owing to the drop in tin, which had been continuous during the seven years that he had taken an interest in Basset—from £160 per ton until now it was something over £90. Wheel Basset sent out accounts before the meeting, and, in this respect, was early as any mine in Cornwall, if not the earliest; but this did not commit the shareholders to accepting the

accounts. He mentioned this as a wrong impression had gone abroad—that the shareholders could not discuss and modify the accounts after publication. He proposed that the accounts be received and adopted with the committees' and agents' report, and the balance of £385 be carried to the debit of the next meeting.

Mr. HENRY TREMBATH seconded, and the motion was carried. The CHAIRMAN said it was regrettable that their loss was £1200 on the quarter's working. Why their receipts were a little more and returns a little less was that they were prevented by breakages from getting their expected quantity of tin. That tin was still in the mine, and he hoped it would come forward to make their loss a little less next time, as he was afraid the coming quarter would also show a loss. He liked to credit nothing except the tin ready for sale at the end of the period for which they hold their accounts. He considered their custom of holding the accounts every quarter of the calendar year much superior to the present empirical fashion of reckoning time in Cornish mines, under which sometimes 13 and sometimes 16 weeks' merchants' bills were charged, so that outsiders could not check the comparative expenditure or economy in different mines, as they could if they had a uniform and constant basis. The agents' report showed that the mine was as promising as it had been for some time past, and, with only a reasonable price for tin, would give the greatest possible encouragement. They had been tossed and troubled with difficulties, and especially with the water question. They had had more than the ordinary rainfall, but have managed to keep the mine in fork fairly well up to now. They had reason to hope that ends driven especially towards the western part will open and extend the piece of ground at the 230 20 or 30 fathoms longer; and that this will warrant them incurring the expenditure necessary to cope with the greater quantity of water if they develop the mine in depth. (Hear, hear.) They were endeavouring to get neighbouring mines to keep down the water on the eastern boundary, so that the engine may devote the most time to the water going east, and enable them, probably, to discover something to benefit them and encourage the shareholders in the neighbouring mines. With a reasonable price for tin, no doubt the mines in this district will all be Wheel Grenvilles—(hear, hear)—only he believed, from the geological formation of the country, they would have to go deeper than Wheel Grenville to get the junction of these profitable lodes; so perseverance was required to make Wheel Basset equally as rich. They ought not to flinch now when the whole world seems to be in a state of depression, as depression never lasts more than a certain time, and if they exercise patience things will regain their old course. The price of silver has enabled the East to export an enormous quantity of tin to compete with Cornwall, but even the powers of endurance of the Straits must be limited, and the present price must make a tremendous difference to them. In time things will find their level, and meanwhile they must go on beating time. He hoped they would be able to keep that side of Carn Brea hill dry and ready for the advance of tin which will surely come. (Hear, hear.) Unfortunately he had seen very little of the prospects of the mine, but his banking account had been affected by the demands for calls. Mr. Trembath would, perhaps, give them a very much more flattering and promising forecast of the future than himself. (Applause.)

Mr. JOHN G. BONE said it was a very unsatisfactory duty to have to propose a call, but they must pay their debts. He proposed a call of 4s. 6d. a share to meet the liabilities of the company, payable on or before 1st October, 1894, with an allowance of 5 per cent. discount if paid before that date.

Mr. HENRY OLDS seconded, and the motion was carried.

On the motion of Mr. GEORGE CARTER (Trannack), seconded by Mr. W. LIDGELY (Devoran), it was resolved to print and circulate the accounts; and the date of the next meeting was fixed for October 23rd at 1 p.m.

Captain OATS said Mr. Henry Trembath was really the Chairman, and asked him whether they would have a dividend next time?

Mr. TREMBATH said the manager could best reply to that. As far as the committee are concerned they have always been accustomed to pay off the liability for the quarter. He had been unfortunate enough to stick to the mine, and had been most unfortunate since he became connected with the committee of a mine, as he got wedded to it, and could not buy and sell shares like some other people. But having lost their money they could not afford to lose their character; so if the mine stopped in six or 12 months' time they would stand a chance of a dividend at the death if not in life. (Laughter.) They certainly would not have any arrears in Wheel Basset. He had been a little too sanguine over the mine, but could not help thinking they really had a mine in Wheel Basset, and, if they only had the price for tin they obtained 12 or 18 months ago, they would now be paying cost or perhaps making a little profit.

The CHAIRMAN said that as he had been away he would propose a vote of thanks to the purser and manager for the way they had carried out their duties. He professed to know a little about mining, and had an opportunity to see things. He felt greatly indebted to them, as with a little less careful management they would have been in a very much worse position than they found themselves. (Hear.) In spite of the stoppage of Wheel Uny, the manager and engineer had so dealt with the matter that the mine was still in fork. He was quite sure that Mr. James has as much pluck as any Cornishman, which was saying a good deal. (Hear, hear.)

After a brief acknowledgment by Mr. RENDLE, the purser, Captain JAMES, in reply, said he thanked them for the confidence they had in him. They were passing through severe and critical circumstances. The present price of tin was killing altogether. The quality of stuff stamped was very low indeed, the reason being that they have had—not a serious breakage, but a lot of little ones, and time after time the engine went idle two, four, six, or eight hours; the consequence was that water is in the bottom of the level. They had a piece of ground below the 200 40 fathoms on the line of the lode, which from the 112 down will last for years, but, unfortunately, it is poor ground. The mine in the bottom—at the 230, which, he supposed, has been as good as any level driven in the mine—has not had much done yet to the bottom of the level, for a big outlay in machinery will be needed to do that. They anticipate that at the 230 there is going to be a big heave in the flat lode. He thought that will be thrown south 20 fathoms. It is nothing unusual for a bunch of tin going down north to jump 40 or 50 fathoms south or jump out altogether. (Laughter.) He would like to see the 200 and 230 driven almost to the boundary. They have had a severe season for water. Their system has been to pump the water out during the summer to be prepared for the winter. (Hear, hear.) In the last two winters they have had to pump an unusual stream, and they have more in their reservoir now than they care to have. Last week the engine ran solid a week without let, which ran down the water in the copper workings, but she is now idle for the day. Breakages cannot be helped, as plates are poor and none in the shaft are alike; so duplicates cannot be kept in stock; although, on the whole, they do their repairs as quickly as anybody else, and change a pump in four hours—a thing no other mine in the county, probably, has done. They want to empty the reservoirs in order to stop the engine 48 hours, and, with an ordinary run of luck, they will get the mine in fork again. They have a piece of ground to explore in line with the shoot of tin where the lode is thrown south. During the coming quarter they will see that. He had always tried to get the men to realise the difficulties before them, but, apparently, they care very little about them. If the mine is to prosper, foreign customs must be adopted. It was useless for one mine alone to try to carry them out; and he has some good men working as well as he could wish; but the majority do not. With the present price of tin the county will shut up, or they must put agents to go underground with the men and come up with them. (Hear, hear.)

A vote of thanks to the Chairman, on the motion of Mr. F. HARVEY, J.P., seconded by Mr. W. LIDGELY, was unanimously carried, and the meeting ended.

MESSRS. DONALD CURRIE and Co's steamer *Grantully Castle* took gold for England to the value of £136,000 on the 25th.

WHEEL FRIENDLY MINE COMPANY.

Some promising lodes to be developed.—A unanimous meeting.

An ordinary general meeting of shareholders in the Wheel Friendly Mine Company was held on Wednesday, at 110, Cannon-street, for the reception of accounts, and other general business. Mr. T. WILLIAMS presided, and among those present were the Rev. W. M. LENOX, and Messrs. Milburn, Budd, Noall, G. Coulter, Hancock.

The CHAIRMAN read the agent's report as follows:—

The 10 fathom level driving east of new shaft (which is 56 fathoms from the surface) on the Pink lode during the past quarter we have intersected the cross course, and have driven 5 fathoms beyond it. The lode is from 5 to 6 feet wide, and producing 48 lbs. of tin to the ton. The lode in the present end is of the same character and value. At this point we have the ground standing whole to the surface, and is only 46 fathoms east of our new shaft. The rise west of cross cut has been put up 8 feet. The lode is from 3 to 4 feet wide, and producing 30 lbs. of tin per ton of stuff. We are laying open some tolerably good tin ground, which could be taken away at a profit with more stamping power. We have about £80 worth of tin ore on the surface in course of preparation for the market.—NICHOLAS VIVIAN.

The CHAIRMAN then said:—Gentlemen, an exceptionally long time has elapsed since we last had the pleasure of meeting you, and this delay has been technically an error on our part. Under the circumstances, however, which will be fully explained to you later on, we considered some delay was advisable, and as this delay has not in any way been prejudicial to your interests, we hope we shall not be too severely censured for it. You will see by the report of Captain Vivian that the prospects of the mine, as a mining property, are as bright and as favourable as ever, and that we have nearly a couple of tons of tin getting ready for market. The Pink lode, which we have recently devoted more attention to, has gradually proved a lode of considerable size, and is carrying more tin than at any previous time. We have been obliged to stop our developments on the flat lode in the south part of our property in consequence of bad ventilation. You will remember we had been working this ground by using the West Kitty shaft. We have, however, as you have been previously informed, proved the fact that the rich flat lode most decidedly is continued in our property, and when we get our own shaft down all this rich ground will then be available for us. Many of you gentlemen will have been surprised at the change in the location of our London office and the secretaryship of the company. To many of the shareholders, however, this was no surprise, as they had long foreseen the advisability of taking such a step, at last the action of Mr. Reynolds, who for several years has never held more than a few shares, led to the removal of the business of the company from his offices. This removal was forced upon your committee in such an abrupt manner that it gave us no opportunity of consulting you as we should have preferred, but the committee were perfectly unanimous that the opportunity offered was too advantageous not to take advantage of, and it is for you to record at this meeting whether you approve of it, and this will be submitted to you in the proper form later on. With regard to the reasons for the delay in holding this meeting, these will be fully gone into presently, and I have now to draw your attention to our accounts, which are as clearly as usual contained in the balance sheet submitted to you. The balance against us, which covers the whole of the past six months, although heavier than usual for this company, is a small one compared with many other non-dividend mines; our present account shows the whole of our trading accounts since we last met, and all our liabilities to merchants have been promptly paid. Our assets are small, but we can congratulate ourselves that we are "free from the skeleton of back debts," to borrow an expression used by an adjoining mine, and a very moderate call will free us from all liability to our bankers; our expenses are kept as low as possible, and it will inspire confidence in you to know that we shall incur no expenditure other than what is required for the mine, and further, that no member of your committee is interested as a merchant or otherwise in any way in the materials so required. I confess it is a very difficult matter to find at the moment the bright side in regard to mining affairs, especially in regard to tin mining in Cornwall, where for some time calls have been the rule, and dividends the exception. We had hoped that this month would have seen the American tariff decided, and that the removal of the duty on tin and a reduction on tin-plate, would have caused a considerable advance in price of this metal, especially as it is well known the American market is almost depleted of tin and tin-plate; there is no doubt this reduction will come, as I am glad to say these duties were not a contentious matter, and that the tariff will be favourably settled sooner or later. In view of the special meeting to follow, I have now to conclude my remarks with the proposal that the accounts and report be received and adopted.

Mr. MILBURN seconded the motion, which was carried unanimously.

Mr. HANCOCK then moved:—

That to provide for the working of the mine during the next three months, and to meet and discharge the present liabilities, a call of 1s. 6d. per share on the shares of this company be and is hereby made, payable to the bankers of the company, Messrs. Bolitho, Williams, and Co. (Limited), Truro, on or before Wednesday, August 15, 1894.

In moving the resolution, Mr. HANCOCK said that at the present time the liabilities were not serious. The balance due at the bankers was £635 8s. 2d., their assets, as represented in the cost-sheet, amounted to £61 4s., and there was also tin valued at about £60 now in course of preparation for sale. The proposed call would enable them to pay off all liabilities and to provide for the working of the mine for another quarter.

The Rev. W. M. LENOX seconded the motion, which was carried unanimously.

Mr. MILBURN asked how much the call would realise.

The CHAIRMAN replied £750.

Mr. HANCOCK then moved a resolution appointing Mr. Thomas Williams as secretary of the company.

The Rev. W. M. LENOX seconded the motion.

Mr. NOALL asked whether it was not the custom to appoint a permanent Chairman to the company. If so he should have liked to see Mr. Williams occupying that position if it were competent for Mr. Williams to act both as secretary and Chairman.

Mr. HANCOCK said it was the custom to appoint a Chairman at the meeting. He had, in fact, his doubts as to whether it was competent for a mining company, worked on the Cost-book principle, to appoint a permanent Chairman.

The motion was then put and carried unanimously.

Mr. LENOX then moved, and Mr. MILBURN seconded, a resolution authorising and approving the removal of the offices from 37, Walbrook, to 110, Cannon-street, which was carried unanimously.

On the motion of Mr. NOALL the following resolution was cordially passed:—

That the best thanks of this meeting be and are hereby presented to the committee of management for their past services, and that the following do constitute such committee until the next general meeting of the company—viz., Messrs. G. Budd, J. J. Galt, G. C. Hancock, W. M. Lennox, W. H. P. Martin, R. Milburn, C. Twite, and T. Williams.

Mr. G. C. HANCOCK then laid before the shareholders some particulars respecting the present position of the company. The property was, he said, considered to be one of the best mining properties in St. Agnes—(hear, hear)—and at the present time St. Agnes was considered to be one of the best districts in Cornwall. Now, there is no doubt whatever as to the existence of the West Kitty lode in the property, seeing that it had been worked close up to their southern boundary, while from a piece of ground not so large in extent as Wheel Friendly the West Kitty people had declared dividends amounting to £110,000. These dividends had been paid from the product of a lode known as the flat lode—which traversed the whole of the Wheel Friendly sett. (Hear, hear.) By making a small outlay—he called £5000 or £6000 a comparatively small outlay—in his opinion they could sink a shaft in Wheel Friendly, erect an engine, and reach the flat lode at about 60 fathoms. Then they would be in a position to pay dividends. Apart from the flat lode they had also one of the best known lodes in the parish—the Pink lode—from which im-

menes quantities of tin had been sold and enormous dividends paid by the adjoining mines, particularly by Penhale, which immediately adjoined it on the east. At the present moment a little further east the lode was being worked by the Blue Hills Company, and the lode to-day was of immense value. Either of the lodes he had mentioned—the flat lode and the Pink lode—was of sufficient value to warrant the spending of enough money to erect an engine and sink a shaft. (Applause.)

The CHAIRMAN was exceedingly pleased to hear these remarks—(hear, hear)—from a man who knew more about the district than anyone at present in London. (Hear, hear.) It was very kind of Mr. Hancock to come up to the meeting to give them the information. (Hear, hear.)

Mr. MILBURN expressed the same view.

The meeting then became special, for the purpose of considering matters not within the scope of the ordinary business.

Mr. HANCOCK moved:—

That shares upon which there are two or more calls due and unpaid be forfeited unless the amount be paid within twenty-one days from this date.

Mr. BUDD seconded the motion, which was carried unanimously.

The CHAIRMAN then said: Gentlemen, the subject of the more rapid development of the Wheel Friendly Mine has been frequently discussed and very seriously considered, and as several of your committee are like many, if not the major portion, of our shareholders, largely interested in mining properties in Cornwall and elsewhere, and consequently know to their cost the serious calls upon their resources by the persistent requirements of non-dividend mines, which have been aggravated by the depressed state of not only the tin market, but every mining industry and manufacturing trade in the country, the question of bringing in outside capital has very seriously been considered in the easiest manner to the present shareholders, and at the same time without reducing their present interest, and also without unduly increasing the total capital of our company. You will doubtless have read with interest the various suggestions that have appeared frequently in the Cornish and other mining papers with regard to Limited Liability, and will have noted that they almost without exception favour the principle of Limited Liability, as being probably the best method of inducing the investment of outside capital into Cornish mines. There is no doubt the "Cost-book" system has many advantages, but, on the other hand, it has the great disadvantage that the general public have no confidence in it, and do not look upon it with any favour, and even in Cornwall itself I believe it is on its last legs. Now as we want about £6000 we must place ourselves in the best position to obtain it, and also at the same time endeavour to give you the maximum of advantage with the minimum of cost. A scheme has been formulated which I believe will, when carefully considered by you, meet your approval. We have had the advantage of discussing this scheme with several outside capitalists and financiers who approve of it, and I am also pleased to tell you the Lords of Wheel Friendly sett have kindly given their consent to it, and I have no doubt this will favourably influence your opinion. We only ask you at this meeting to look upon this scheme favourably as a preliminary step. The scheme being fully matured, and we in a position to say definitely we can obtain the capital required, we should then call you together again to finally discuss it. I may tell you at the outset that there will be no "promotion" money, and every pound of the money proposed to be raised will be expended on the mine, and in paying the legal and registering expenses connected with it. These, however, will be small. We find the amount of cash we require is £6000, based upon the careful calculation of experts. This will sink our shaft complete with timbering down to the flat lode, provide an engine for pumping and winding purposes, and the various surface plant. In order to provide this amount we have had during the past six months many negotiations with a gentleman who has a large and powerful clientele in the metal industries, and who has had considerable and successful experience in financing, and who approves of the scheme. He has also gone to the expense of having had our mine examined and reported on by his own independent expert. Several of your committee recently had the opportunity of meeting this gentleman in London, in the presence of several of his friends, when he assured us he could carry out our scheme. He has also written us on the subject, and which letter I will read to you, and I think you will be satisfied with his assurances. But the moment for the actual subscription of the cash is not propitious owing to the unfortunate depressed state of trade, and especially the tin-plate industry, but in the course of the autumn months no doubt this will mend itself. The scheme is briefly this. A small limited company is proposed, with a nominal capital of £25,000 in £1 shares, of which 10,000 shares are proposed to be issued to the present shareholders, with 15s. paid up; 6000 shares will be offered for subscription, with a bonus or brokerage to cover expenses of 3500 fully-paid shares. The gentleman in question proposes to get 4000 shares, at least, subscribed amongst his friends, and the other 2000 will be offered to the present shareholders on the same terms as to bonus or brokerage, so that the fully-paid shares will be absorbed by those who subscribe for the new capital. This will leave 5500 shares of £1 each as a reserve for future requirements. The present shareholders would, therefore, by agreeing to this scheme for a future outlay of 5s. per share, be able to convert their present holding into fully-paid shares of £1 each, free from any further liabilities. A large proportion of our shareholders already approve of the idea. We could, of course, with your approval, adopt the bold course of making sufficient calls to provide all the outlay required, but we feel this course, during the unprecedentedly depressed state of business, is not an advisable one. As I said before, we do not want at this meeting your actual decision, as we are not at the moment in a position to actually guarantee the money, but we desire you carefully to consider it, so that when we meet you again—which we hope will be before the usual period of our next general meeting—we shall have the unanimous consent of the shareholders. In conclusion, I wish to assure you that no additional expense will be incurred by these negotiations, so that you may have no anxiety on that account. Such, gentlemen, is the outline of the proposed scheme, so far as it goes, and I may remark we are not at the present moment in a position to say that it can be carried out, but I think there is a good prospect of doing so. One or two other Cost-book mines in Cornwall are making the same move, as in our own case, their finances will not allow them to move as quickly as they might wish.

Mr. MILBURN said the scheme would provide for the subscription of £2000 by the present shareholders, and of £4000 by outside shareholders.

He then moved:—

The committee having laid before the meeting some particulars of a scheme whereby capital is proposed to be provided for the better development of the mine, it is resolved that the committee be requested and is hereby authorised to conduct the necessary negotiations and to report thereon when sufficiently advanced to the shareholders.

The Rev. W. M. LENOX seconded the motion.

Mr. HANCOCK said that as there were so large a number of shareholders in favour of the change to the Limited Liability principle he should not oppose it, but at the same time he might state his own opinion, which was that the Cost-book was the only principle on which Cornish mines could be properly worked.

Mr. MILBURN said that if the scheme were not carried out, they would have had to provide the whole sum among the shareholders, and if the amount were required soon, large calls would have to be made.

Mr. HANCOCK said that small calls would have done. The one being made at present of 1s. 6d. was considered a very small call. The motion was then put and carried unanimously.

A vote of thanks to the Chairman, moved by Mr. NOALL, and carried by acclamation, concluded the proceedings.

FATAL PIT ACCIDENT AT DALRY.—James Murray, a young miner, 17 years of age, was on Monday morning accidentally killed in No. 9 Blair Pit, belonging to Messrs. Wm. Baird and Co. (Limited). He was engaged along with his father at the face, when a fall from the roof took place, burying the young man, and crushing him in such a manner that he only lived a few minutes after being released.

THE QUEBRADA RAILWAY, LAND, AND COPPER COMPANY, LIMITED.

The low price of copper.—Improvements in the management.—A committee of investigation appointed.

The 12th ordinary general meeting of the shareholders in the Quebrada Railway, Land, and Copper Company (Limited) was held yesterday, at the Cannon-street Hotel, E.C., the chair being occupied by Mr. HUGH MATHESON.

The SECRETARY (Mr. A. D. Mitchell) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, I wish much it were in my power to give you a more cheerful account of the company's affairs for the year on which we are now reporting. You will, however, have gathered from the printed report that there are several distinct reasons why we are unable to do so—the serious effects of exceptional floods, including a break in the Barquisimeto Railway, which entailed a loss to this company in railway receipts of £20,000; a diminution in the copper contents of the available ore extracted from the mine, and the unexampled low price to which the metal has fallen. You will hardly need to be told that the serious losses incurred have occupied the increasing attention of the board, and it will not be for want of the most untiring and strenuous exertions on our part if substantial improvements and economies are not introduced into the working. As you have learned, we sent out to Venezuela, last autumn, a commission from the board, to make a thorough investigation into the management on the spot. As a result of their report and recommendations, and after long and anxious consideration, the board are determined to reorganise the local management, and are sending out immediately an able and experienced metallurgist and mining engineer, Mr. Alexander Hill, to examine the mines and methods of working, together with a new manager, whom he will install at the mines and smelting works. We have also engaged a new manager for the railway department, a man of special ability and experience. These important steps cannot, of course, be expected to tell much upon the financial results of the present year; nevertheless, we are not without hopes that they may shortly put a new face upon things. It is evident that until we receive a report from Mr. Hill there must be much uncertainty as to the future of the company's mining property. I am thankful, however, to say that, irrespective altogether of these changes, the six months just terminated have shown a marked improvement in the diminished cost of mineral production, and in an increase of general railway traffic. Indeed, after allowing for debenture and other interest, the revenue account for those six months shows a small profit. We began in 1893 with a debit balance in the revenue account of £19,531 4s. I deeply regret to say this loss was increased during the year by £77,228 12s. 8d., so that the amount at debit of revenue account on Dec. 31 last was £96,759 16s. 8d. The explanation of this melancholy result is as follows:—1. The ore taken from the mine yielded half a unit—literally 0.47 per ton less copper than the previous year. This goes for £12,000. 2. The price realised was £3 8s. 4d. per net ton of copper less, equal to £10,000. 3. Our interest and exchange charges went up, as compared with the previous year, £7000. 4. The receipts in the railway department were seriously prejudiced by the break caused by floods in the Barquisimeto Railway, now again completely restored, and in proper working order. Compensation to owners of produce, £1900; repairs to Barquisimeto Railway, £7300—£9200; these items with the interest, £32,000, and cost of administration, &c., £6000, make up the amount I have given as the increase to debit of revenue account. You will judge from this that the financial position of the company has caused us the gravest anxiety. There did not occur to the board any method by which funds could be provided outside to carry the company through its difficulties. On the other hand, the commercial agents could not be expected to continue their cash advances without holding security. After much consideration, Messrs. Matheson and Company consented to continue for a time the required advances on condition that they were secured, and this was done in such manner as has enabled the company to obtain the needed financial assistance up to the present. I may say that we have been in communication with some of the largest bondholders, and that we are inviting their co-operation in devising some plan for re-adjusting the company's finance to serve all interests, and to secure the supply of funds for the current working of the concern. It will necessarily, however, take several months before anything definite as to the future can come from the mines, and I fear we must be prepared to exercise patience until then. And you may accept the board's assurance that nothing will be done without previous communication with yourselves, as well as the creditors of the company. I beg to move the adoption of the report and accounts.

Colonel ANSTRUTHER seconded the motion.

Mr. F. CARTER: No doubt the perusal and study of the report and accounts has suggested to many of you gentlemen that the position of our affairs is serious. I am bound to believe myself that is so, and feel, unless the matter is taken in hand quickly and something done to arrest the fatal policy and effects of an annually increasing debt, the shareholders will soon find themselves without any property, and the debenture holders with a much diminished security. For I am informed that the security of the debenture holder is only a floating charge upon the property, and does not prevent further borrowing of money, having a prior claim to themselves on any particular part of our property, and as a matter of fact I believe our bankers, Messrs. Matheson, have for their security the railway, which I take to be the most valuable part of our property. When we look at our position in 1891, when we had £47,000 to our credit, and compare it with the present, I think we shall all be struck with melancholy and with the seriousness of the situation. In 1892 we lost £67,000, including the £47,000 we carried forward, and in 1893 we lost £77,000, making a total loss for the two years of £144,000. In 1893 we produced 2760 tons of copper at a total charge for mining, smelting, carriage, freight, commission, &c., of £140,000, or over £50 a ton, or, if we deduct for increase of stocks, between £48 and £49 a ton. In 1892 our production was 3065 tons, obtained at a cost of £145,000, which represents about £47 a ton, and if we deduct for increase of stocks, would be less. In 1891 the production was 6356 tons, obtained at a total cost of about £170,000, or about £27 5s. a ton. It will be seen that the costs per ton increase terribly, and now leave no chance of a profit from the mines, but a very heavy loss. Bankers' interest has increased from £3200, in 1892, to £10,100, in 1893. Where is this to end, I ask you? In view of the seriousness of the situation I am going to propose, in no spirit of hostility to the board or any one, "That a committee, composed of at least three members, all being debenture holders as well as shareholders, shall be appointed to confer with the board, and report to the shareholders and debenture holders, by circular or otherwise, the result of the conference, together with any recommendations they may think desirable." I shall be obliged if any gentleman will second the proposal.

Mr. MEATES seconded Mr. Carter's motion, expressing his surprise that when the regulus was produced at so great a loss the directors should not only have maintained, but actually have increased, the production. It seemed to him that it would have been better had the mine been shut down. He was quite willing to accept the view that the causes of the unfortunate results which had followed upon the company's operations were quite beyond the control of the directors, but he thought it would be more satisfactory if the shareholders were to have this statement from an independent committee after investigation, and upon that account he supported the motion moved by Mr. Carter. He was at the same time unable to see why a prior charge should have been created over the heads of the debenture holders without taking them into consultation.

The CHAIRMAN said the board had no objection at all to the appointment of a committee. They had, in fact, thrown out a similar suggestion themselves. Every enquiry into the admini-

say to you as to the recent advice. So short a period has elapsed since the inauguration of the company that we have not had time to receive an answer from Mr. Nines to the Lion Company's letter advising him to proceed working the property for the new company now possessing it. Recent communications received from Mr. Nines, however, have given his opinion, confirmed elsewhere, that the Lion should be one of the best gold producing properties on the field. Our capital will be husbanded with great care, and Mr. Nines is certainly a man we can rely on in carrying out our instructions in regard to the property. There is one other thing in connection with the property which I must mention, and that is the proposed railway. All those interested in Matabeleland and Mashonaland know that Mr. Rhodes has elected to find the capital for the construction of a continuation of the Barra Railway, so important does this additional communication appear to be to the colony. At present the railway only runs within some 60 miles, and all things which may be sent to the gold fields have to come by wagon, which makes them very expensive. By the end of the year, however, we expect that the railway will have advanced considerably nearer to our property, and so obviate the difficulties of the Fly Country. Soon we shall have communication throughout that country, and shall be able to get up all the stores which may be required with ease and facility and much less expense. As to the future business of the mine, you will not be surprised to hear that as soon as we come upon payable quartz and have commenced opening up our mines by the sinking of a shaft and other works, it will be necessary to have some milling accommodation for crushing. That time is, I think, within a measurable distance. From what I hear it is probable that an enterprise will be started by several influential men to work crushing mills to serve those mines which may not have mills of their own in actual working, and it is the intention of your board to utilise those mills for the present should they be started, so as to save the large amount of money which would be required for the erection of machinery. When our mining operations commence to grow and extend it will be for us to consider the expediency of having our own mills and our own cyanide plant. You are aware that we have a very capable mine manager, who will be our superintending manager. Labour is cheap and, I believe, plentiful, the situation will be adjacent to the railway, and the reports from the property are exceedingly encouraging. In fact, I do not know of any property in Mozambique which has been more encouragingly spoken of than our own, excepting perhaps Parry's Syndicate. The latter appear to have done exceedingly well, judging from the very high price at which their shares are quoted—some 60 per cent. or 70 per cent. premium—and the confidence which the shareholders repose in the concern. It appears to me, however, that the Lion is situated as favourably, and I do not see why our shareholders should not become in time just as satisfied with our own property. I hope that when we meet again we may have something of an encouraging nature to communicate to you. Perhaps I should mention that I have been asked by several of the La Plata shareholders to say whether they could not obtain some shares in the Lion. I have always referred them to the secretary. The La Plata shareholders have behaved very well to us, and have responded in the most liberal manner, and I hope they will not have any cause to regret the confidence they have placed in us.

A SHAREHOLDER enquired what the present remuneration of the directors was.

The CHAIRMAN replied £50 a year each.

The proceedings concluded with a hearty vote of thanks to Mr. Tavenor for presiding.

ALABAMA COAL, IRON, LAND, AND COLONISATION COMPANY, LIMITED.

Trade in Alabama.—A decrease in land sales.

The twelfth ordinary general meeting of the shareholders in the Alabama Coal, Iron, Land, and Colonisation Company (Limited) was held at Winchester House, on Wednesday, the chair being occupied by Mr. AUGUSTUS B. ABRAHAM.

The SECRETARY (Mr. Eugene Cox) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, the report has been in your hands for some time, and I do not suppose you wish it to be read. I ought to say a word, I think, as to the reason of the delay in holding our meeting, which is seven weeks after the usual time. That reason simply was that we were in hopes of being able to congratulate you on the fact that foreign pig iron and foreign coal would not be allowed to enter the United States duty free. There is, of course, a very great difference of opinion on this question, and some of the Democratic party—and especially those connected with ourselves—think that it would interfere very greatly with Eastern and Northern trade, for Nova Scotia iron would be introduced into all the Atlantic ports against Alabama iron, so that we should lose a good many of our markets in the north. Well, there have also been a very cogent set of reasons urged by one set of people in the south in favour of Free Trade, and by another set against it. We have thought, however, that under no circumstances—so far as the Alabama trade developed—could we be interfered with. The matter is, however, one upon which it is very difficult to form an opinion, seeing that politics are so much mixed up in it. We cannot help it, and we can only hope that whatever happens Alabama will be able to hold its own under all circumstances. There is no doubt that under the operation of the tariff the development of Alabama has gone on most successfully. The report which we have to lay before you is certainly an exceedingly disappointing one, and the first page of it, especially, gives me a very unpleasant text to enlarge upon. There it appears that we sold during the year no land in fee simple or mineral rights, and that we have only sold 4065 acres of surface rights for £13,435, at an average price of a few cents less per acre than we received last year. I don't think this is to be wondered at, especially after the statement detailed in the bold little brochure we have printed and circulated for the information of our certificate holders and shareholders. For commercial transactions, there has been up to the present no capital forthcoming, and we cannot reasonably expect that people would place money in what may be an unproductive investment in land, when there are so many ventures and undertakings which came into existence during the recent boom, and which have had to be suspended, but which would, in the event of an improvement, first claim attention. I hope that little book will be some satisfaction to the shareholders and certificate holders in showing that the people of the south are viewing matters without any dependency at all, and that, notwithstanding the severe crisis they have passed through, they are making extraordinary efforts to maintain the position of Alabama, and to attract the attention of Northerners and English capital to their resources. Not only have the sales been very small, but the note collections have also been small, and together with the interest received on account of land sales have totalled only \$19,711, as compared with \$36,082 in the last year. This is to be accounted for by reason of the arrangement come to with the New South Mining and Manufacturing Company. They owed us \$66,500, and during the last two years we have been holding out hopes that the company would be able to make its payments. Since then, however, they have gone through liquidation, and are unable to raise funds for the purpose of payment, and at last we have come to an arrangement with some few who still remain in the district, the effect of which will be that we shall be remitted back to the ownership of all the lands sold, free of all the costs of foreclosing, while the £2000 paid on deposit will be kept by us as forfeited. There will, of course, be a deduction of \$66,500 from the amount of notes, while the lands we have in hand will be increased by the acreage upon which we have foreclosed. In point of fact at the present moment we hold 523,000 acres of land instead

of the acreage mentioned in the report. There are two items in the cash account of the American Company, which I think will be very gratifying to the shareholders. My friend, Mr. Schiff, you will remember, on a former occasion, said that there was a possibility of increasing rents being paid to us, and you will see on page 12 of the report that for rents \$1202 has been received, instead of the \$600 of last year. That is to say that the amount received in rents has been doubled. Then there is the dividend of the Standard Coal Company of \$700. That is the investment made by the American Land Company, and it has turned out exceedingly advantageous, and I noticed in perusing the report that the output of coal for that company was reported in May last as 650 tons per diem. (Hear, hear.) The result of the accounts is that there was a small amount of \$463, mentioned as remittances, or which we were willing should be treated as remittances, seeing that our work requires that payments should be made there, and to save the expense in exchange we have arranged that these shall be treated as remittances. The amount would have to be divided among three funds, and would yield only a very small amount to the bondholders and certificate holders, the fact being that it requires about £3000 to pay a coupon, so that there is no good beginning there. With regard to the balance-sheet, I have a very few remarks to offer. It will be noticed that the share sinking fund is reduced, not only by the payment of a dividend, but also by the reserve of £1520 against depreciation on some of the American securities which we hold. Our auditors require that some allowance should be made, at least on the face of the accounts. We have taken the price at the end of the year, and it amounts to £1520. We hope next year that there will be a considerable improvement in American securities, and that our special securities will no longer suffer in the depreciation. Then as regards the bondholders sinking fund you see it is only £1618 10s. 11d., and that is not sufficient to pay a coupon. Then there is an item of sundry debtors, which, in point of fact, includes amounts, i.e., claims against the American company for some costs incurred in a provincial sale which, I am sorry to say, never was completed, and that remains outstanding between us and them. Then the last item which I have to refer to is administration expenses, which are only £12 more than in 1892, although the interest on our investment is considerably reduced. I do not know there is anything more for me to say. So far as your directors are concerned, they have no fear whatever as to the result of the operations of this company. As to the shareholders, we have a fund large enough for the payment of dividends for the next six years, and as regards the certificate holders, our business is a business of liquidation, and we cannot help the depression which exists in the commerce of America. When we undertook this business 16 years ago we were hopeful as to the future, and, if that were so, how much more cause have we not to be hopeful now that the position of Alabama is so much improved in relation to pig iron, coal, and cotton. The shareholders will be glad to know that the property out there is in good hands; so that when a turn in the tide comes we shall be able fully to profit by it. The Chairman concluded by moving the adoption of the report and accounts.

Mr. SCHIFF seconded the motion, saying that there was no doubt that the value of the company's assets was as great as it had ever been, and, that being so, and the management on the other side being excellent, he thought they might look for most satisfactory results in the future. (Hear, hear.)

Mr. AUSTEN: I suppose we have had the benefit of the £2000 which has been forfeited.

The CHAIRMAN: Yes; we should like a number of similar transactions.

The motion for the adoption of the report and accounts was then put and carried.

The retiring directors, Messrs. Abraham and Kirkwood, having been re-elected, and the auditors, Messrs. Price, Waterhouse and Co., re-appointed, the meeting terminated with a vote of thanks to the Chairman.

WHEEL BASSET.

Call of 4s. 6d. per share.

A 16 weekly meeting of adventurers was held on the mine on Tuesday, Mr. FRANCIS OATS presiding. The accounts showed: Debits, labour pay, £3478; supplies (including coal, £1179), £2122; bank charges, £48; stannary assessment, £4 7s.; total, £5673. Credits, 103 tons of black tin sold, £4292; other receipts made the total £4381, leaving a loss of £1292. The total balance against the adventurers was £1385.

The committee's report regrets that the returns for the past quarter show a reduction of 10 tons 15 cwt. 3 qrs. of tin, and £326 in amount realised. This is due to some breakages in the machinery, which has given us a smaller quantity of tin stone. The quantity of tin stone stamped has been 4885 tons, as compared with 5478 tons a last quarter. Our average produce has been 47½ lbs. to the ton, as against 46 lbs. in the former quarter. The reduction in the consumption of coal is owing to the smaller quantity of tin stuff stamped and the stoppage of the Cornish engine for several days. Our merchants' bills show an increase of £37, due to repairs of breakages and a supply of steel rails, which was urgently needed. The average price of tin sold during the quarter shows an increase of £1 3s. a ton, viz., £41 11s. 6d., against £40 5s. 6d. The loss of £1292 will require a call of 4s. 6d. per share, which your committee recommends. The usual analysis is appended.

Analysis for quarter.	This.	Last.
Tin stuff stamped	4885 tons	5478 tons.
Average produce	47½ lbs. per ton	46 lbs. per ton.
Labour cost	£3478 0s. 5d.	£3305 4s. 11d.
Cost of coal	£1179 11s. 6d.	£1153 4s. 1d.
Merchants' bills	£48 1s. 6d.	£375 12s. 7½d.
Tin sold	103 tons 5 cwt. 3 lbs.	114 tons 3 cwt. 3 qrs. 24 lbs.
Average price	£41 11s. 6d.	£40 5s. 6d.
Total cost	£5673 11s. 9d.	£5538 0s. 6d.
Total credits	£4381 11s. 6d.	£4890 12s. 3d.
	Increase.	Decrease.
Tin stuff stamped	—	593 tons.
Average produce	1½ lbs. per ton	—
Labour cost	£112 15s. 7d.	—
Cost of coal	—	£73 12s. 5d.
Merchants' bills	£67 9s. 4d.	—
Tin sold	—	10 tons 18 cwt. 3 qrs. 22 lbs.
Average price	£1 3s. 6d.	—
Total cost	£135 11s. 3d.	—
Total credits	—	£309 1s. 3d.

AGENTS' REPORT.—Gentlemen: The 230 and west is driving by boring machinery at £9 10s. a fathom, producing stones of tin but nothing to value. 230 and east on south part of lode, driving by boring machinery at £9 10s. a fathom, worth £15. 230 and east of crosscut on south part of lode worth £10 a fathom, driving at £4 a fathom and 3s. 6d. a ton. 230 and west of crosscut on south part of lode worth £12 a fathom, driving at £4 a fathom and 3s. 6d. a ton. A rise in the back of the 230 worth £5 a fathom, rising at £7 and 3s. a ton. A stop working in the back of the 230, south part of lode, worth £15 a fathom, working at 3s. 6d. a ton. Another is worth £10 a fathom, stopping at 3s. a ton. A stop working at the 230 is worth £18 a fathom, stopping at 3s. a ton. The 230 and west of winze is driving by boring machinery at £7 a fathom, lode poor at present. A winze sinking below the 230 is worth £12 a fathom, sinking at £7. We have two stopes in the back of the 230 worth £13 a fathom, each stopping at 3s. 6d. a ton. A stop in the back of the 180 is worth £9 a fathom stopping at 3s. 6d. a ton. The 170 and west of Grace's shaft is driving at £10 a fathom, producing stamping work. Stope in back of 170 £12 a fathom, stopping at 3s. a ton. Stope in back of 170 £8, stopping at £3 10s. We have at present 128 men working on outwork, also four pitches working on tribute by eight men at 12s. in the £, standard £42 10s. per ton for tin. Total employed in every department underground, including shaftmen, timbermen, trammers, &c., and fillers, 151 men. We regret we have to show such a heavy loss on the quarter's working. The reduction of 10 tons of tin in our returns is very disappointing to us. We have had so many petty breakages during the quarter with our pumping machinery, the water being in our workings, that we have been unable to discharge our usual quantity of tin stone.—WILLIAM JAMES, CHARLES CLEMENS, JAMES ANDREW.

The CHAIRMAN said it was more a matter of duty than of pleasure that they were there, as with tin at the present low price most of the Cornish mines are in the regrettable position of having a balance on the wrong side. In spite of efforts made to develop the mines by improved machinery, everything seems to have been frustrated so far as good results are concerned, owing to the drop in tin, which had been continuous during the seven years that he had taken an interest in Basset—from £160 per ton until now it was something over £60. Wheel Basset sent out accounts before the meeting, and, in this respect, was early as any mine in Cornwall, if not the earliest; but this did not commit the shareholders to accepting the

accounts. He mentioned this as a wrong impression had gone abroad—that the shareholders could not discuss and modify the accounts after publication. He proposed that the accounts be received and adopted with the committees' and agents' report, and the balance of £385 be carried to the debit of the next meeting.

Mr. HENRY TREMBATH seconded, and the motion was carried.

The CHAIRMAN said it was regrettable that their loss was £1200 on the quarter's working. Why their receipts were a little more and returns a little less was that they were prevented by breakages from getting their expected quantity of tin. That tin was still in the mine, and he hoped it would come forward to make their loss a little less next time, as he was afraid the coming quarter would also show a loss. He liked to credit nothing except the tin ready for sale at the end of the period for which they hold their accounts. He considered their custom of holding the accounts every quarter of the calendar year much superior to the present empirical fashion of reckoning time in Cornish mines, under which sometimes 13 and sometimes 16 weeks' merchants' bills were charged, so that outsiders could not check the comparative expenditure or economy in different mines, as they could if they had a uniform and constant basis. The agents' report showed that the mine was as promising as it had been for some time past, and, with only a reasonable price for tin, would give the greatest possible encouragement. They had been tossed and troubled with difficulties, and especially with the water question. They had had more than the ordinary rainfall, but have managed to keep the mine in fork fairly well up to now. They had reason to hope that ends driven especially towards the western part will open and extend the piece of ground at the 230 20 or 30 fathoms longer; and that this will warrant them incurring the expenditure necessary to cope with the greater quantity of water if they develop the mine in depth. (Hear, hear.) They were endeavouring to get neighbouring mines to keep down the water on the eastern boundary, so that the engine may devote the most time to the water going east, and enable them, probably, to discover something to benefit them and encourage the shareholders in the neighbouring mines. With a reasonable price for tin, no doubt the mines in this district will all be Wheal Grenville—(hear, hear)—only he believed, from the geological formation of the country, they would have to go deeper than Wheal Grenville to get the junction of these profitable lodes; so perseverance was required to make Wheal Basset equally as rich. They ought not to flinch now when the whole world seems to be in a state of depression, as depression never lasts more than a certain time, and if they exercise patience things will regain their old course. The price of silver has enabled the East to export an enormous quantity of tin to compete with Cornwall, but even the powers of endurance of the Straits must be limited, and the present price must make a tremendous difference to them. In time things will find their level, and meanwhile they must go on beating time. He hoped they would be able to keep that side of Carn Brea hill dry and ready for the advance of tin which will surely come. (Hear, hear.) Unfortunately he had seen very little of the prospects of the mine, but his banking account had been affected by the demands for calls. Mr. Trembath would, perhaps, give them a very much more flattering and promising forecast of the future than himself. (Applause.)

Mr. JOHN G. BONE said it was a very unsatisfactory duty to have to propose a call, but they must pay their debts. He proposed a call of 4s. 6d. a share to meet the liabilities of the company, payable on or before 1st October, 1894, with an allowance of 5 per cent. discount if paid before that date.

Mr. HENRY OLDS seconded, and the motion was carried.

On the motion of Mr. GEORGE CARTER (Trannack), seconded by Mr. W. LIDGEY (Devoran), it was resolved to print and circulate the accounts; and the date of the next meeting was fixed for October 23rd at 1 p.m.

Captain OATS said Mr. Henry Trembath was really the Chairman, and asked him whether they would have a dividend next time?

Mr. TREMBATH said the manager could best reply to that. As far as the committee are concerned they have always been accustomed to pay off the liability for the quarter. He had been unfortunate enough to stick to the mine, and had been most unfortunate since he became connected with the committee of a mine, as he got wedded to it, and could not buy and sell shares like some other people. But having lost their money they could not afford to lose their character; so if the mine stopped in six or 12 months' time they would stand a chance of a dividend at the death if not in life. (Laughter.) They certainly would not have any arrears in Wheal Basset. He had been a little too sanguine over the mine, but could not help thinking they really had a mine in Wheal Basset, and, if they only had the price for tin they obtained 12 or 18 months ago, they would now be paying cost or perhaps making a little profit.

The CHAIRMAN said that as he had been away he would propose a vote of thanks to the purser and manager for the way they had carried out their duties. He professed to know a little about mining, and had an opportunity to see things. He felt greatly indebted to them, as with a little less careful management they would have been in a very much worse position than they found themselves. (Hear.) In spite of the stoppage of Wheal Ury, the manager and engineer had so dealt with the matter that the mine was still in fork. He was quite sure that Mr. James has as much pluck as any Cornishman, which was saying a good deal. (Hear, hear.)

After a brief acknowledgment by Mr. RENDLE, the purser, Captain JAMES, in replying, said he thanked them for the confidence they had in him. They were passing through severe and critical circumstances. The present price of tin was killing altogether. The quality of stuff stamped was very low indeed, the reason being that they have had—not a serious breakage, but a lot of little ones, and time after time the engine went idle two, four, six, or eight hours; the consequence was that water is in the bottom of the level. They had a piece of ground below the 200 40 fathoms on the line of the lode, which from the 112 down will last for years, but, unfortunately, it is poor ground. The mine in the bottom—at the 230, which he supposed, has been as good as any level driven in the mine—has not had much done yet to the bottom of the level, for a big outlay in machinery will be needed to do that. They anticipate that at the 230 there is going to be a big heave in the flat lode. He thought that will be thrown south 20 fathoms. It is nothing unusual for a bunch of tin going down north to jump 40 or 50 fathoms south or jump out altogether. (Laughter.) He would like to see the 200 and 230 driven almost to the boundary. They have had a severe season for water. Their system has been to pump the water out during the summer to be prepared for the winter. (Hear, hear.) In the last two winters they have had to pump an unusual stream, and they have more in their reservoir now than they care to have. Last week the engine ran solid a week without let, which ran down the water in the copper workings, but she is now idle for the day. Breakages cannot be helped, as plates are poor and none in the shaft are alike; so duplicates cannot be kept in stock; although, on the whole, they do their repairs as quickly as anybody else, and change a pump in four hours—a thing no other mine in the county, probably, has done. They want to empty the reservoirs in order to stop the engine 48 hours, and, with an ordinary run of luck, they will get the mine in fork again. They have a piece of ground to explore in line with the shoot of tin where the lode is thrown south. During the coming quarter they will see that. He had always tried to get the men to realise the difficulties before them, but, apparently, they care very little about them. If the mine is to prosper, foreign customs must be adopted. It was useless for one mine alone to try to carry them out; and he has some good men working as well as he could wish; but the majority do not. With the present price of tin the county will shut up, or they must put agents to go underground with the men and come up with them. (Hear, hear.)

A vote of thanks to the Chairman, on the motion of Mr. F. HAVERTY, J.P., seconded by Mr. W. LIDGEY, was unanimously carried, and the meeting ended.

Messrs. DONALD CURRIE and Co's steamer *Grantully Castle* took gold for England to the value of £130,000 on the 25th.

**THE QUEBRADA RAILWAY, LAND, AND COPPER
COMPANY, LIMITED.**

Some promising lodes to be developed.—A unanimous meeting.

An ordinary general meeting of shareholders in the Wheal Friendly Mine Company was held on Wednesday, at 110, Cannon-street, for the reception of accounts, and other general business. Mr. T. WILLIAMS presided, and among those present were the Rev. W. M. Lennox, and Messrs. Milburn, Budd, Noall, G. Coulter, Hancock.

The CHAIRMAN read the agent's report as follows:—

The 10 fathom level driving east of new shaft (which is 56 fathoms from the surface) on the Pink lode during the past quarter was intersected by the cross course, and have driven 5 fathoms beyond it. The lode is from 5 to 6 feet wide, and producing 48 lbs. of tin to the ton. The lode in the present end is of the same character and value. At this point we have the ground standing whole to the surface, and is only 47 fathoms east of our new shaft. The rise west of cross cut has been put up 8 feet. The lode is from 4 to 6 feet wide, and produces 20 lbs. of tin to the ton. The ground is laying open some tolerably good tin ground, which could be taken away at a profit with more stamping power. We have about £60 worth of tin ore on the surface in course of preparation for the market.—NICHOLAS VIVIAN.

The CHAIRMAN then said:—Gentlemen, an exceptionally long time has elapsed since we last had the pleasure of meeting you, and this delay has been technically an error on our part. Under the circumstances, however, which will be fully explained to you later on, we considered some delay was advisable, and as this delay has not in any way been prejudicial to your interests, we hope we shall not be too severely censured for it. You will see by the report of Captain Vivian that the prospects of the mine, as a mining property, are as bright and as favourable as ever, and that we have nearly a couple of tons of tin getting ready for market. The Pink lode, which we have recently devoted more attention to, has gradually proved a lode of considerable size, and is carrying more tin than at any previous time. We have been obliged to stop our developments on the flat lode in the south part of our property in consequence of bad ventilation. You will remember we had been working this ground by using the West Kitty shaft. We have, however, as you have been previously informed, proved the fact that the rich flat lode most decidedly is continued in our property, and when we get our own shaft down all this rich ground will then be available for us. Many of you gentlemen will have been surprised at the change in the location of our London office and the secretaryship of the company. To many of the shareholders, however, this was no surprise, as they had long foreseen the advisability of taking such a step, at last the action of Mr. Reynolds, who for several years has never held more than a few shares, led to the removal of the business of the company from his offices. This removal was forced upon your committee in such an abrupt manner that it gave us no opportunity of consulting you as we should have preferred, but the committee were perfectly unanimous that the opportunity offered was too advantageous not to take advantage of, and it is for you to record at this meeting whether you approve of it, and this will be submitted to you in the proper form later on. With regard to the reasons for the delay in holding this meeting, these will be fully gone into presently, and I have now to draw your attention to our accounts, which are as clearly as usual contained in the balance sheet submitted to you. The balance against us, which covers the whole of the past six months, although heavier than usual for this company, is small one compared with many other non-dividend mines; our present account shows the whole of our trading accounts since we last met, and all our liabilities to merchants have been promptly paid. Our assets are small, but we can congratulate ourselves that we are "free from the skeleton of bad debts," to borrow an expression used by an adjoining mine, and a very moderate call will free us from all liability to our bankers; our expenses are kept as low as possible, and it will inspire confidence in you to know that we shall incur no expenditure other than what is required for the mine, and further, that no member of your committee is interested as a merchant or otherwise in any way in the materials so required. I confess it is a very difficult matter to find at the moment the bright side in regard to mining affairs, especially in regard to tin mining in Cornwall, where for some time calls have been the rule, and dividends the exception. We had hoped that this month would have seen the American tariff decided, and that the removal of the duty on tin and a reduction on tin-plate, would have caused a considerable advance in price of this metal, especially as it is well known the American market is almost depleted of tin and tinplates; there is no doubt this reduction will come, as I am glad to say these duties were not a contentious matter, and that the tariff will be favourably settled sooner or later. In view of the special meeting to follow, I have now to conclude my remarks with the proposal that the accounts and report be received and adopted.

Mr. MILBURN seconded the motion, which was carried unanimously.

Mr. HANCOCK then moved:—

That to provide for the working of the mine during the next three months, and to meet and discharge the present liabilities, a call of 1s. 6d. per share on the shares of this company be and is hereby made, payable to the bankers of the company, Messrs. Bolitho, Williams, and Co. (Limited), Truro, on or before Wednesday, August 15, 1894.

In moving the resolution, Mr. HANCOCK said that at the present time the liabilities were not serious. The balance due at the bankers was £635 8s. 2d., their assets, as represented in the cost-sheet, amounted to £61 4s., and there was also tin valued at about £60 now in course of preparation for sale. The proposed call would enable them to pay off all liabilities and to provide for the working of the mine for another quarter.

The Rev. W. M. LENNOX seconded the motion, which was carried unanimously.

Mr. MILBURN asked how much the call would realise.

The CHAIRMAN replied £750.

Mr. HANCOCK then moved a resolution appointing Mr. Thomas Williams as secretary of the company.

The Rev. W. M. LENNOX seconded the motion.

Mr. NOALL asked whether it was not the custom to appoint a permanent Chairman to the company. If so he should have liked to see Mr. Williams occupying that position if it were competent for Mr. Williams to act both as secretary and Chairman.

Mr. HANCOCK said it was the custom to appoint a Chairman at the meeting. He had, in fact, his doubts as to whether it was competent for a mining company, worked on the Cost-book principle, to appoint a permanent Chairman.

The motion was then put and carried unanimously.

Mr. LENNOX then moved, and Mr. MILBURN seconded, a resolution authorising and approving the removal of the offices from 37, Walbrook, to 110, Cannon-street, which was carried unanimously.

On the motion of Mr. NOALL the following resolution was cordially passed :—

That the best thanks of this meeting be and are hereby presented to the committee of management for their past services, and that the following do constitute such committee until the next general meeting of the company—viz., Messrs. G. Budd, J. J. Galt, G. C. Hancock, W. M. Lennox, W. H. F. Martin, B. Milbourn, C. Twite, and T. Williams.

Mr. G. C. HANCOCK then laid before the shareholders some particulars respecting the present position of the company. The property was, he said, considered to be one of the best mining properties in St. Agnes—(hear, hear)—and at the present time St. Agnes was considered to be one of the best districts in Cornwall. Now, there is no doubt whatever as to the existence of the West Kitty lode in the property, seeing that it had been worked close up to their southern boundary, while from a piece of ground not so large in extent as Wheal Friendly the West Kitty people had declared dividends amounting to £110,000. These dividends had been paid from the product of a lode known as the flat lode—which traversed the whole of the Wheal Friendly sett. (Hear, hear.) By making a small outlay—he called £5000 or £6000 a comparatively small outlay—in his opinion they could sink a shaft in Wheal Friendly, erect an engine, and reach the flat lode at about 60 fathoms. Then they would be in a position to pay dividends. Apart from the flat lode they had also one of the best known lodes in the parish—the Pink lode—from which im-

menne quantities of tin had been sold and enormous dividends paid by the adjoining mine, particularly by Penhales, which immediately adjoined it on the east. At the present moment a little further east the lode was being worked by the Blue Hills Company, and the lode to-day was of immense value. Either of the lodes he had mentioned—the flat lode and the Pink lode—was of sufficient value to warrant the spending of enough money to erect an engine and sink a shaft. (Applause.)

The CHAIRMAN was exceedingly pleased to hear these remarks—(hear, hear)—from a man who knew more about the district than anyone at present in London. (Hear, hear.) It was very kind of Mr. Hancock to come up to the meeting to give them the information. (Hear, hear.)

Mr. MILBURN expressed the same view.

The meeting then became special, for the purpose of considering matters not within the scope of the ordinary business.

Mr. HANCOCK moved:—

That shares upon which there are two or more calls due and unpaid be forfeited unless the amount be paid within twenty-one days from this date.

Mr. BUND seconded the motion, which was carried unanimously.

The CHAIRMAN then said: Gentlemen, the subject of the more rapid development of the Wheal Friendly Mine has been frequently discussed and very seriously considered, and as several of your committee are like many, if not the major portion, of our shareholders, largely interested in mining properties in Cornwall and elsewhere, and consequently know to their cost the serious calls upon their resources by the persistent requirements of non-dividend miners, which have been aggravated by the depressed state of not only the tin market, but every mining industry and manufacturing trade in the country, the question of bringing in outside capital has very seriously been considered in the easiest manner to the present shareholders, and at the same time without reducing their present interest, and also without unduly increasing the total capital of our company. You will doubtless have read with interest the various suggestions that have appeared frequently in the Cornish and other mining papers with regard to Limited Liability, and will have noted that they almost without exception favour the principle of Limited Liability, as being probably the best method of inducing the investment of outside capital into Cornish mines. There is no doubt the "Cost-book" system has many advantages, but, on the other hand, it has the great disadvantage that the general public have no confidence in it, and do not look upon it with any favour, and even in Cornwall itself I believe it is on its last legs. Now as we want about £6000 we must place ourselves in the best position to obtain it, and also at the same time endeavour to give you the maximum of advantage with the minimum of cost. A scheme has been formulated which I believe will, when carefully considered by you, meet your approval. We have had the advantage of discussing this scheme with several outside capitalists and financiers who approve of it, and I am also pleased to tell you the Lords of Wheal Friendly sett have kindly given their consent to it, and I have no doubt this will favourably influence your opinion. We only ask you at this meeting to look upon this scheme favourably as a preliminary step. The scheme being fully matured, and we in a position to say definitely we can obtain the capital required, we should then call you together again to finally discuss it. I may tell you at the outset that there will be no "promotion" money, and every pound of the money proposed to be raised will be expended on the mine, and in paying the legal and registering expenses connected with it. These, however, will be small. We find the amount of cash we require is £6000, based upon the careful calculation of experts. This will sink our shaft complete with timbering down to the flat lode, provide an engine for pumping and winding purposes, and the various surface plant. In order to provide this amount we have had during the past six months many negotiations with a gentleman who has a large and powerful clientele in the metal industries, and who has had considerable and successful experience in financing, and who approves of the scheme. He has also gone to the expense of having had our mine examined and reported on by his own independent expert. Several of your committee recently had the opportunity of meeting this gentleman in London, in the presence of several of his friends, when he assured us he could carry out our scheme. He has also written us on the subject, and which letter I will read to you, and I think you will be satisfied with his assurances. But the moment for the actual subscription of the cash is not propitious owing to the unfortunate depressed state of trade, and especially the tin-plate industry, but in the course of the autumn months no doubt this will mend itself. The scheme is briefly this. A small limited company is proposed, with a nominal capital of £25,000 in £1 shares, of which 10,000 shares are proposed to be issued to the present shareholders, with 15s. paid up; 6000 shares will be offered for subscription, with a bonus or brokerage to cover expenses of 3500 fully-paid shares. The gentleman in question proposes to get 4000 shares, at least, subscribed amongst his friends, and the other 2000 will be offered to the present shareholders on the same terms as to bonus or brokerage, so that the fully-paid shares will be absorbed by those who subscribe for the new capital. This will leave 5500 shares of £1 each as a reserve for future requirements. The present shareholders would, therefore, by agreeing to this scheme for a future outlay of 5s. per share, be able to convert their present holding into fully-paid shares of £1 each, free from any further liabilities. A large proportion of our shareholders already approve of the idea. We could, of course, with your approval, adopt the bold course of making sufficient calls to provide all the outlay required, but we feel this course, during the unprecedentedly depressed state of business, is not an advisable one. As I said before, we do not want at this meeting your actual decision, as we are not at the moment in a position to actually guarantee the money, but we desire you carefully to consider it, so that when we meet you again—which we hope will be before the usual period of our next general meeting—we shall have the unanimous consent of the shareholders. In conclusion, I wish to assure you that no additional expense will be incurred by these negotiations, so that you may have no anxiety on that account. Such, gentlemen, is the outline of the proposed scheme, so far as it goes, and I may remark we are not at the present moment in a position to say that it can be carried out, but I think there is a good prospect of doing so. One or two other Cost-book mines in Cornwall are making the same move, as in our own case, their finances will not allow them to move as quickly as they might wish.

Mr. MILBURN said the scheme would provide for the subscription of £2000 by the present shareholders, and of £4000 by outside shareholders.

He then moved:—

The committee having laid before the meeting some particulars of a scheme whereby capital is proposed to be provided for the better development of the mine, it is resolved that the committee be requested and is hereby authorised to conduct the necessary negotiations and to report thereon when sufficiently advanced to the shareholders.

The Rev. W. M. LENNOX seconded the motion.

Mr. HANCOCK said that as there were so large a number of shareholders in favour of the change to the Limited Liability principle he should not oppose it, but at the same time he might state his own opinion, which was that the Cost-book was the only principle on which Cornish mines could be properly worked.

Mr. MILBURN said that if the scheme were not carried out, they would have had to provide the whole sum among the shareholders, and if the amount were required soon, large calls would have to be made.

Mr. HANCOCK said that small calls would have done. The one being made at present of 1s. 6d. was considered a very small call.

The motion was then put and carried unanimously.

A vote of thanks to the Chairman, moved by Mr. NOALL, and carried by acclamation, concluded the proceedings.

FATAL PIT ACCIDENT AT DALRY.—James Murray, a young miner, 17 years of age, was on Monday morning accidentally killed in No. 9 Fair Pit, belonging to Messrs. Wm. Baird and Co. (Limited). He was engaged along with his father at the face, when a fall from the top took place, burying the young man, and crushing him in such a manner that he only lived a few minutes after being released.

The low price of copper. — Improvements in the management. — A committee of investigation appointed.

The 12th ordinary general meeting of the shareholders in the Quebrada Railway, Land, and Copper Company (Limited) was held yesterday, at the Cannon-street Hotel, E.C., the chair being occupied by Mr. HUGH MATHEWSON.

The SECRETARY (Mr. A. D. Mitchell) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, I wish much it were in my power to give you a more cheerful account of the company's affairs for the year on which we are now reporting. You will, however, have gathered from the printed report that there are several distinct reasons why we are unable to do so—the serious effects of exceptional floods, including a break in the Barquisimeto Railway, which entailed a loss to this company in railway receipts of £20,000; a diminution in the copper contents of the available ore extracted from the mine, and the unexampled low price to which the metal has fallen. You will hardly need to be told that the serious losses incurred have occupied the increasing attention of the board, and it will not be for want of the most untiring and strenuous exertions on our part if substantial improvements and economies are not introduced into the working. As you have learned, we sent out to Venezuela, last autumn, a commission from the board, to make a thorough investigation into the management on the spot. As a result of their report and recommendations, and after long and anxious consideration, the board are determined to reorganise the local management, and are sending out immediately an able and experienced metallurgist and mining engineer, Mr. Alexander Hill, to examine the mines and methods of working, together with a new manager, whom he will install at the mines and smelting works. We have also engaged a new manager for the railway department, a man of special ability and experience. These important steps cannot, of course, be expected to tell much upon the financial results of the present year; nevertheless, we are not without hopes that they may shortly put a new face upon things. It is evident that until we receive a report from Mr. Hill there must be much uncertainty as to the future of the company's mining property. I am thankful, however, to say that, irrespective altogether of these changes, the six months just terminated have shown a marked improvement in the diminished cost of mineral production, and in an increase of general railway traffic. Indeed, after allowing for debenture and other interest, the revenue account for those six months shows a small profit. We began in 1893 with a debit balance in the revenue account of £19,531 4s. I deeply regret to say this loss was increased during the year by £7,228 12s. 8d., so that the amount at debit of revenue account on Dec. 31st last was £26,759 16s. 8d. The explanation of this melancholy result is as follows:—1. The ore taken from the mine yielded half a unit—literally 0·47 per ton less copper than the previous year. This goes for £12,000. 2. The price realised was £3 8s. 4d. per net ton of copper less, equal to £10,000. 3. Our interest and exchange charges went up, as compared with the previous year, £7000. 4. The receipts in the railway department were seriously prejudiced by the break caused by floods in the Barquisimeto Railway, now again completely restored, and in proper working order. Compensation to owners of produce, £1900; repairs to Barquisimeto Railway, £7300—£9200; these items with the interest, £32,000, and cost of administration, &c., £6000, make up the amount I have given as the increase to debit of revenue account. You will judge from this that the financial position of the company has caused us the gravest anxiety. There did not occur to the board any method by which funds could be provided outside to carry the company through its difficulties. On the other hand, the commercial agents could not be expected to continue their cash advances without holding security. After much consideration, Messrs. Matheson and Company consented to continue for a time the required advances on condition that they were secured, and this was done in such manner as has enabled the company to obtain the needful financial assistance up to the present. I may say that we have been in communication with some of the largest bondholders, and that we are inviting their co-operation in devising some plan for re-adjusting the company's finance to serve all interests, and to secure the supply of funds for the current working of the concern. It will necessarily, however, take several months before anything definite as to the future can come from the mines, and I fear we must be prepared to exercise patience until then. And you may accept the board's assurance that nothing will be done without previous communication with yourselves, as well as the creditors of the company. I beg to move the adoption of the report and accounts.

Colonel ANSTUTHER seconded the motion.

Mr. F. CARTER: No doubt the perusal and study of the report and accounts has suggested to many of you gentlemen that this position of our affairs is serious. I am bound to believe myself that is so, and feel, unless the matter is taken in hand quickly and something done to arrest the fatal policy and effects of an annually increasing debt, the shareholders will soon find themselves without a property, and the debenture holders with a much diminished security, for I am informed that the security of the debenture holder is only a floating charge upon the property, and does not prevent further borrowing of money, having a prior claim to themselves on any particular part of our property, and as a matter of fact I believe our bankers, Messrs. Matheson, have for their security the railway, which I take to be the most valuable part of our property. When we look at our position in 1891, when we had £47,000 to our credit, and compare it with the present, I think [we shall all be struck with melancholy and with the seriousness of the situation. In 1892 we lost £67,000, including the £47,000 we carried forward, and in 1893 we lost £77,000, making a total loss for the two years of £144,000. In 1893 we produced 2760 tons of copper at a total charge for mining, smelting, carriage, freights, commission, &c., of £140,000, or over £50 a ton, or, if we deduct for increase of stocks, between £48 and £49 a ton. In 1892 our production was 3065 tons, obtained at a cost of £145,000, which represents about £47 a ton, and if we deduct for increase of stocks, would be less. In 1891 the production was 6356 tons, obtained at a total cost of about £170,000, or about £27 5s. a ton. It will be seen that the costs per ton increase terribly, and now leave no chance of a profit from the mines, but a very heavy loss. Bankers' interest has increased from £3200, in 1892, to £10,100, in 1893. Where is this to end, I ask you? In view of the seriousness of the situation I am going to propose, in no spirit of hostility to the board or any one, "That a committee, composed of at least three members, all being debenture holders as well as shareholders, shall be appointed to confer with the board, and report to the shareholders and debenture holders, by circular or otherwise, the result of the conference, together with any recommendations they may think desirable." I shall be obliged if any gentleman will second the proposal.

Mr. MEARES seconded Mr. Carter's motion, expressing his surprise that when the regulus was produced at so great a loss the directors should not only have maintained, but actually have increased, the production. It seemed to him that it would have been better had the mine been shut down. He was quite willing to accept the view that the causes of the unfortunate results which had followed upon the company's operations were quite beyond the control of the directors, but he thought it would be more satisfactory if the shareholders were to have this statement from an independent committee after investigation, and upon that account he supported the motion moved by Mr. Carter. He was at the same time unable to see why a prior charge should have been created over the heads of the debenture holders without taking them into consultation.

The CHAIRMAN said the board had no objection at all to the appointment of a committee. They had, in fact, thrown out a similar suggestion themselves. Every enquiry into the admini-

fraction of the board was invited. The steps of the board were uniformly in the interests of the shareholders. The company had given security to their agents, and it was absolutely imperative to carry on the business of the company, and no house in the world would advance money which was not covered by some security.

Mr. DOUGLAS said it was satisfactory to know that the management under which a heavy loss had been incurred had been changed, and he believed it was the fact that during the last six months there had been a sufficiency of profit to meet the debenture interest for the half year.

The CHAIRMAN replied that this was so, and that after the payment a surplus of £7000 remained.

Mr. DOUGLAS, continuing, said he thought it would be a fair thing to give the debenture stock a change on the property if at present they had none.

Mr. MULLINS said he was a large bondholder, and had received no information as to the proposal to take away the security which the bondholders had believed themselves to possess. It seemed to him that the directors should hardly have waited until the company was in such great difficulties before making a change in the management.

The CHAIRMAN said the present was not the first occasion on which they had interfered in the management. They could not go out to the property themselves, and when they found things were going so badly they sent out the commission, which he hoped would lead to satisfactory results. As to the cost of regular, to which reference had been made, in May of last year it was £46 8s., the magnitude of which was due to the perturbed state of the country and the destruction of part of their works by the floods, which were the heaviest known in the country for many years. In June of the present year the cost of the regular had been reduced to £28 2s. 6d., (applause) which was sufficient to show that everything possible had been done for economy. In addition to that, the price of copper had been going steadily down until it had reached a lower point than ever before in the history of the trade.

The motion for the adoption of the report and accounts was then put and carried unanimously.

Mr. CARTER explained that his own resolution had been prompted by no feeling of hostility to the board. On the contrary he was actuated by the highest respect for Mr. Matheson, who had always courteously replied to any enquiries he had cared to make.

The resolution for the formation of a committee was then put and carried unanimously. Messrs. Carter, Meates, and Douglas being appointed with power to add to their number.

Mr. Thompson and Colonel Anstruther, the retiring directors, having been re-elected, and the auditors, Messrs. Welton, Jones, and Co., having been re-appointed, the meeting terminated with a hearty vote of thanks to the Chairman.

NEW ST. AUGUSTINE, LIMITED.

Statutory meeting of the new company.

At the first ordinary general (statutory) meeting of the company, held yesterday, at the Cannon-street Hotel, the CHAIRMAN (Mr. Byron Johnson) said the business of the meeting was to elect directors, those now constituting the board only holding office till this meeting. Before proceeding with the business he would like to say something of the position and progress of the company. It was considered by the committee of enquiry necessary to drive further in the north-west direction at the 800 feet level, in which direction "blue" had always been found. The present directors, therefore, deemed it expedient to direct all their attention to this. In all diamond mines, the diamondiferous ground was found in tunnels. In the case of Kimberley, it did not pay till worked at about 800 feet. They had in their favour the reports of the Government Inspectors that in the New St. Augustine Mine they had a true diamond mine. Their late manager, however, drove in quite a different direction from that to which they were directing their efforts. He (the Chairman) considered the object of the reconstruction was to develop the mine at the 800 feet level. Towards this object they had 234,583 shares, credited with 18s. 6d. taken up, which would yield over £16,000, and in addition they had the assets of the old company of the value of from £600 to £1000. The amount available, therefore, was about £17,000; and of course any further shares taken up would increase that amount. As this £17,000 was a small sum, the board had deemed it prudent to proceed with the drives at the 800 feet level without any delay. Their late manager had, however, removed the pumps; a most important part of the pump was lost in the shaft, which lost them two months, and cost £12,000. Before mining operations could be begun they had 300 feet of water to pump out. Mr. Wolf, one of the directors, who was sent out to report on the property, found the machinery with the exception of the pump in good condition. A rather serious difference had arisen between Mr. Wolf and his colleagues, Mr. Wolf having exceeded his instructions by engaging a mining engineer to report on the property. The engineer reported favourably on the "blue" between the 200 feet level and 400 feet level, but advised that it was useless to pump the mine dry. The board sent out instructions to go on with the pumping, at the same time, to sample the ground between the 300 and 400 feet levels, and, if payable, to work it. Mr. Wolf wrote, in reply, that he thought it would be quite against the wishes of the shareholders that he should act on the opinion of the directors at home rather than on those of experts on the spot. The board thereupon sought the advice of Mr. Kitto, who confirmed the Government reports. It took about a day to pump out 20 feet of water, and as they had been advised by Mr. Wolf that the pumps would probably be working by the 12th, the mine should be almost dry by now. The directors recommended that three directors were sufficient, but they, of course, left that to the shareholders.

Mr. McHARDY moved, and Mr. SWINSON seconded, that "This meeting sees no objection to the action of Mr. Wolf, and entirely approves of the action of the board."

Mr. GILES moved as an amendment, that "The words referring to Mr. Wolf be omitted, and the motion stand—This meeting entirely approves of the action of the board."

The amendment was carried.

After some further discussion Messrs. Johnson, Smith, and Samuels were elected directors at the remuneration of £300, to be divided among them as they might agree.

A hearty vote of thanks to the chair concluded the proceedings.

GOLD MINING IN WALES.—Of late we have not heard very much concerning gold mining in Wales, but from news to hand this week the industry appears to be in a flourishing condition. At the Clogau Mine they have this week cleaned up 348½ ozs. for a month's run, and as the gold won is worth 24 per oz., and as only 15 men are employed on the mine and the expenses do not greatly exceed £100 per month, the profit for the period mentioned must be approximately £1200, and this on a capital of £500. The Clogau has earned £10,000 in dividends during the last two years. At Moel Iapri rich gold has been struck at a depth of 40 feet, the stone going from 12 ozs. to 16 ozs. per ton. Tynllwyn is on good stone, and Cefn Coch (which is the property of Professor Crookes) has had satisfactory crushings during the last few weeks, and rich stone is still on hand in the mine. The Morgan Mine is now in the hands of the British Gold Fields (Limited) a private company, consisting of Mr. Pritchard-Morgan and his friends, who are doing a great deal of development work, having over 100 men engaged in mining operations. They have not commenced crushing yet, but it is understood that the prospects are good.

LEGAL INTELLIGENCE.

GOLD AND ITS RECOVERY.

A DISPUTE IN THE LAW COURTS.—CASSEL v. CYANIDE.

ON Monday, before Mr. Justice Romer, the trial, *Cassel Gold Extracting Company v. Cyanide Gold Recovery Company* and others, was commenced. The plaintiffs urged that they were the registered owners of certain letters patent, numbered 14,174, of 1887, granted to John Stuart MacArthur, W. Forrest, and William Forrest for improvements in obtaining gold and silver ores and other compounds. They alleged that the defendants had at divers times infringed the plaintiffs' letters patent by employing a process of obtaining gold and silver from ores, consisting in dissolving them out by treating the powdered ore or compound with a solution containing cyanogen, or a cyanide, or a cyanogen-yielding substance, substantially as described and claimed in the specification. The plaintiffs accordingly claimed the usual relief in a patent action. In the particulars of breaches the plaintiffs complained, in particular, of the construction and use and exhibition by the defendants of plant erected at the laboratory of R. H. Harland, F.I.C., F.C.S., Plough-court, 37, Lombard-street, for the treatment of ores for the extraction of gold and silver.

The defence is a denial of infringement and allegation that the plaintiffs' letters patent were not valid. The particulars of objection to the validity of the letters patent state that the alleged invention was not subject matter for a patent, in view of the state of public knowledge at the date, and having regard to prior publications. Objection was taken to several of the statements in the specifications, on the ground that they were insufficient and misleading, and the alleged invention, as claimed in the second claiming clause of the specification, was said to be different from that for which the patent was applied for, and was not indicated or referred to in any way in the provisional specification. The alleged invention was not new at the date of the patent, having been published in a number of publications, which the defendants relied upon as anticipations.

Sir Richard Webster, Q.C., M.P., Mr. F. Moulton, Q.C., M.P., Mr. Bousfield, Q.C., and Mr. A. J. Walter (instructed by Messrs. Davidson and Morris) were counsel for the plaintiffs; Sir Edward Clarke, Q.C., M.P., Mr. R. Neville, Q.C., M.P., and Mr. Goodeve appeared for the defendants.

Sir R. WEBSTER, in opening the case, said that the plaintiffs were owners of a patent granted to Mr. MacArthur and Mr. Forrest for the method of extracting gold from their ore. The patent had been put in practice, particularly in South Africa, during the life of the patent (which only ran from the year 1887) to a very large extent. Between 600,000 ounces and 700,000 ounces of gold had been successfully extracted by this process, having a value of £2,500,000 in money, and royalties had been paid to the extent of £117,000 in connection with the process. There had been a variety of methods of extracting gold, chemical and mechanical; but prior to this patent there was no method of extracting the residuum of gold from the tailings or washings of gold ore. The anticipations set up by the defendants extended back for a great many years; but with reference to the character of these anticipations, and with reference to the suggestion that the existing knowledge was such as to prevent the plaintiffs from disclosing subject matter, according to his instructions nothing had been added to the useful public knowledge in this matter since a statement by Professor Faraday in 1857. The learned counsel then dealt with the specification, the claim in which is substantially in the form of the relief claimed. The first claim, he said, was for the use of cyanogen in the way described, and the second for a particular proportion of the cyanogen in the dilute solution. He said there was no dispute as to what the defendants had done; the sole dispute was as to the deduction from those facts. The defendants had erected an experimental laboratory. They advertised for persons to come and have their ores tested by the Pielsticker process, Pielsticker being a gentleman who had purported to invent the infringing process. The defendants permitted his clients to inspect what was being done at the laboratory of Mr. Harland. The suggestion was that they were not working to obtain gold by the dissolving action of the cyanide of potassium, but by electrical action, which had the effect of extracting the gold from the ore electrically, and not by the process Messrs. Forrest and MacArthur had described. The plaintiffs' case would be that electricity did not add anything to the dissolving power of the cyanide of potassium; in other words, that the gold which was extracted was in the defendants' process got out by the dissolving action of the dilute solution in exactly the same way as in the plaintiffs' patent.

Evidence was then called in support of the plaintiffs' case. Professor JAMES DEWAR described the operation of the plaintiffs' and defendants' patents as he understood them, and the use that had been made of cyanide of potassium as a means of extracting gold. Before this patent it had never been used for commercial purposes. The instructions in the plaintiffs' patent were sufficient to enable persons to use this process, which worked admirably in the laboratory, and had been an enormous success in the commercial world. Witness had seen the Pielsticker process, and gave it as his opinion that the separation of the gold from its ore was there brought about by the solution of cyanide of potassium.

Cross-examined by Sir EDWARD CLARKE, WITNESS said that he was used in many of the previous methods. The ore in Rae's specification dated 1867 was placed in cyanide of potassium solution and treated electrically. There was nothing in common between Rae's method and that of the defendants. Pressed as to this, witness admitted that in each case the ore was placed in a solution of potassium, and in each case the electric current passed through the ore and through the solution.

Sir EDWARD CLARKE: I now take you to the specification of Sanders, 1881. He says: "I have found that a mixture of cyanide of potassium and phosphoric acid, in about the proportions hereinafter mentioned, constitutes a powerful solvent for coatings of gold ore."

WITNESS: That is an American publication. It was suggested that Sanders' specification would lead people to the use of cyanide of potassium to dissolve gold, but witness avowed that it would lead people away from the object of the plaintiffs' patent.

Professor ROBERTS-AUSTEN, F.R.S., and chemist of the Royal Mint, &c., said he was well acquainted with the various processes for the production of gold from its ores. In 1887 he had never heard of the production of gold from its ores by means of cyanide of potassium. He had no reason whatever to suppose that cyanide of potassium would be affected. In 1887, if anybody had suggested the treatment of powdered ore with a solution of potassium, he would have thought the action would not be efficacious. Nothing in the particulars or objection threw any light on the subject. Before 1887 the great bulk of gold was

extracted by the amalgamation process. Almost anyone might be treated by that process. Another method was the chlorine process, which was conducted in vessels not unlike those before the Court. A still further method was that of smelting with lead. The lowest grades of ore might, to a certain extent, have been treated by the chlorine process; but the cyanide process was the first that was really effectual.

The WITNESS then corroborated the evidence of Professor Dewar in chief as to the alleged anticipating specifications. With regard to Simpson's patent, he had made certain experiments on a small scale, and found that the carbonate of ammonia tended to break up the cyanide.

Cross-examined by Mr. NEVILLE, WITNESS said he knew that there was such a work as "Chemistry applied to Arts." In that book it was stated that Faraday found that ordinary gold leaf might be reduced in thickness without destroying it by means of a solution of cyanide of potassium, and that "cyanide of potassium is employed in the reduction of rarer metals from their ores."

From Faraday onwards all the books have referred to the solubility of gold in cyanide of potassium?—That is a matter of common knowledge, following Faraday.

The solution acts on the surface of the gold?—Yes. Then it would necessarily act in the case of gold finely divided?—Yes.

At the date of the patent the system of obtaining the ore from the solution was known?—It was.

So that the method of extracting the gold from ore was known at the date of the patent, and the fact that cyanide of potassium was a solvent of gold was known?—Certainly.

You have to get the gold out of solution?—Yes.

The patent is concerned solely with getting the gold into solution?—Yes.

And you may use any known method of getting it out again?—Certainly.

In all these commercial processes the real question is the question of cost?—It is.

Was there a single process in existence then by which you did not either lose a large proportion of your gold in solution, or destroy the solution itself?—None which could be used as efficaciously as the plaintiffs' patent; but there were methods.

Which was the best known method?—By running the solution over zinc in a more or less finely-divided state.

Is not the plaintiffs' other patent for that very thing you have described?—Yes.

Mr. NEVILLE: That patent is a year later.

WITNESS went on to say that at the date of the plaintiffs' patent there were undoubtedly difficulties in getting the gold out of solution, and, in answer to the learned Judge, admitted that Rae's patent got a solution for gold, and that Rae would have completed the problem if he had found a proper method of extracting that gold from the solution. Rae, however, thought that electricity would answer. Plaintiffs' patent was for all ores. Agitation was used by plaintiffs' method. He had not tried Simpson's process. That was an American patent published in England. Acid was a deterrent to the action of the cyanide, and an alkali was necessary to counteract the acid. In that respect Simpson's solution would be more efficacious than the plaintiffs'; but that was not Simpson's object. Carbonate of ammonia would be a disadvantage, as it would decompose the cyanide. Simpson's solution, he believed, would dissolve the gold in the ore.

In re-examination by Mr. Bousfield, WITNESS said that he used cyanide as a reducer. The attenuated gold spoken of by Faraday was less than 1-3000th of an inch. Ruby gold was smaller. He had never heard of Rae's process being practically worked; but it would effect the solution of gold. Rae's method did not disclose any more than was known in electro-plating. Simpson's did not disclose that cyanide of potassium would dissolve gold in ore.

Lord KELVIN, examined by Sir R. Webster, said that he had examined the Pielsticker process. In the plan shown to him, the anodes and cathodes were at a certain point, and these had an electric current of less than two volts. The electricity thus produced would retard the action of solution. He had not experimented on this particular bath, but would expect to find the deposit on the cathode. Shown a trough on which he had experimented, he explained that he made the experiment to ascertain the effect of electricity in precipitating. A retarding effect was the result of the experiment. He also explained another experiment with an electric wire. Taken to the plaintiffs' plan, he explained that with the cyanide of potassium used with the anode and cathode, the anode having the gold, the gold would by the solution, be deposited on the cathode. By Rae's process the electricity retarded the action. Asked as to the effect of the solution according to strength, he corroborated the evidence of Professor Dewar and Professor Roberts-Austen as to the greater effect of the weaker solution. In Faraday's disclosures with regard to gold leaf, the relation of area to mass was of great importance. Faraday's specification would not lead anybody to the practical process of dissolving gold out of ore by that solution. Nobody could predicate that the dissolving action would be such as to be of any use.

Mr. EDWARD JAMES MILLS, F.R.S., and professor of technical chemistry in the Glasgow and West of Scotland Technical College, said that the specifications alleged to be anticipations did not disclose the use of cyanide of potassium for the extraction of gold from its ore. The remainder of the witness's evidence was in agreement with that given by the previous witnesses.

In cross-examination he admitted that Rae's process was efficient for dissolving the gold in the ore. With regard to Simpson's patent, he thought that cyanide of potassium and carbonate of ammonia were linked together to form a solvent. He was present at the experiments made in the case, but they never took the defendants' actual apparatus for the purpose.

Mr. JUSTICE ROMER said that the sole question was whether the electricity going through the defendants' apparatus did have the effect of assisting solution, and asked witness why he did not try that.

WITNESS said that their experiments were conducted in a simple and trustworthy form, and there was nothing in the apparatus used which would vitiate the results.

Mr. ROBERT TATLOCK, F.R.S. and F.I.C., said that he was the public analyst for Glasgow. Witness was the author of the article on "Cyanide of Potassium," relied on in the particulars of objection, which said that "nearly all the cyanide of potassium made is used in electro-gilding, &c. It is also applied in the reduction of some of the rarer metals from their ores." That referred to the dry process, and not in any way to the wet process. The witness then corroborated previous witnesses as to the results of experiments and as to cyanide of potassium being the effective agents in both the plaintiffs' and defendants' methods of extraction.

Dr. GEORGE GORE, F.R.S., &c., said he never knew gold dissolved directly in cyanide of potassium for the purpose of forming a solution. Electricity was used in connection with electro-plating.

Cross-examined: Rae's and the defendants' processes were alike successful in dissolving the gold in the ore.

Sir HENRY ROSCOE said that the plaintiffs' process had rendered the economical extraction of gold from tailings possible.

In the alleged anticipating specifications there was no case in which the cyanide of potassium alone was used for the purposes of extraction.

Mr. LOUIS JANIN gave evidence to prove the inefficacy of Rae's patent. Simpson was his uncle.

Cross-examined by Mr. NEVILLE, WITNESS said that Simpson's system did not succeed in bringing gold into solution. He knew at the date of Rae's patent that the solution of cyanide of potassium was effective for the purpose of getting gold in solution; but it was a special knowledge. The solvency of gold was generally known years before, but not of gold in ore. In 1840 Elkington used cyanide of potassium.

Professor CHOCQUES gave evidence to the same effect as previous chemical witnesses.

Cross-examined by Sir EDWARD CLARKE: The discovery of MacArthur and Forrest was that what was known to scientific men (namely, that a solution of cyanide of potassium would melt gold) was enlarged to apply to gold-bearing ores practically. The merit of the plaintiffs' invention was the application of a scientific fact to practical use, showing that what was known in the laboratory, and had only been done on a small scale, could be applied on a large scale, and practically, to gold-bearing ores. In his opinion, it was a patent to cover every solution of cyanide for the treatment of every kind of ore. Without modifications it could not be so well applied to gold ore where there was much copper.

Mr. JOHN STEWART MACARTHUR, F.I.C., &c., one of the patentees, said that in 1886 he began the chain of experiments which led up to this patent. Before he experimented he had no knowledge that the cyanide of potassium could be practically used to extract gold from ore. Persons would not, he believed, have been led to that by the alleged anticipations. There was no known practical means of extracting the gold from tailings which were, comparatively speaking, poor in gold. At that time the residual gold was going to waste. By their method ore containing 3 dwts. of gold, or one part in 200,000, could be profitably worked. Witness then detailed the various experiments made before the taking out of the patent. Until his experiments he had no knowledge that cyanide of potassium would dissolve the gold in ore. He agreed with the other scientific witnesses that it was the fact that a dilute solution had a selective action, having verified that fact in the course of his experiments. He understood Rae's process to be a simultaneous dissolving and depositing process. It was within his knowledge that Rae's patent was unworkable, and, in his opinion, nobody would have been led to the dissolving of gold by cyanide of potassium by Rae without the use of electricity. Taken to Pielstick's process, witness said that he went to Mr. Harland's place of business and saw the defendants' apparatus. He had experimented to see whether the electric current had any effect in dissolving the gold in the ore, and found no beneficial effect. His results showed that the dissolution of the gold out of the ore was not assisted by the electricity. On some ores his process would operate better than on others; but it was applicable to all ores.

Cross-examined by Sir EDWARD CLARKE: The conclusion that the electricity had no effect was arrived at from the fact that there was as much gold left when electricity was not used as when it was.

Mr. GEORGE MACCULLOCH, Chairman of the African Gold Recovery Company, which has the rights of the plaintiff company in that country, said that up to the time of the introduction of the cyanide process the tailings were wasted, it being impossible to work them profitably. At present there was some gold in the tailings which could not be dealt with. He should say that about one-half of the present production would not exist but for the introduction of the cyanide process, but for the cyanide process mines averaging less than 9 dwts. per ton would not be profitable properties. From March, 1891, to April, 1894, the total production of gold by this process was upwards of 681,000 ounces.

This was the plaintiffs' case.

Sir EDWARD CLARKE submitted that the plaintiffs had made out no case. The claim was for any solution containing cyanogen, or cyanides, or any other solution containing or holding cyanogen. That was the largest claim that could possibly be made. It was admitted that for years it had been well known that an aqueous solution containing cyanogen had the property of dissolving gold. Under these circumstances he submitted that there was no subject matter of invention at all. For a person to say: "I take a patent by which I, as against all the world, claim to myself the exclusive right of extracting gold from its ore with a solution of any strength in respect of gold, however contained in ore, or however situated, and I claim to prevent the world from using solution containing cyanogen," was bad. He submitted that there was no subject matter of a patent and no invention. To obtain a patent there must be novelty and the application of ingenuity in order to produce the result which was to be obtained. What novelty and what ingenuity could it be suggested there was in this? There was no novelty. The properties of cyanogen had been known for half a century. There was no ingenuity, unless it were that ingenuity which consisted in trying solutions of different strengths, and then claiming them all. How could a patent be good which claimed cyanogen in combination with anything and everything.

Mr. JUSTICE ROMER intimated that he was with the defendants on several points; but would not determine the case without hearing the evidence.

Evidence was thereupon called for the defence.

Mr. CLAUDE VAUTIN, 42, Old Broad Street, examined by Mr. NEVILLE, said that he had been analytical chemist for over 20 years, and had applied himself to the study of gold. 16 years ago he knew of the solution of gold by cyanide of potassium. It should have been known to persons engaged in metallurgical chemistry in 1887 that the cyanide of potassium dissolved gold in a state of fine division. In 1855 he was in Melbourne, and was then acquainted with Sanders's patent. He carried out experiments on the lines of the patent. A number of patents was tested, and Sanders's was thought to be an extraordinary one—the extraordinary thing was that Sanders should use an acid which would dissolve gold. He became acquainted with Simpson's patent in 1887. It had been published in text-books, including one by Pixley. Witness gave the results of some experiments with cyanide of ammonium and cyanide of potassium, and said that he found that that mixture acted on natural gold quicker than the plaintiffs'. He put in no carbonate of ammonia. Witness said that it was correct that he had made experiment with cyanide of ammonium with cyanide of potassium, and the combination was more rapid in its action on gold than when the ammonium was absent. One reason that induced him to believe that the other products of carbonate of ammonia, as specified by Simpson, would not be deterrent to the operation of the cyanide of potassium was that potassium carbonate in a solution of potassium and magnesia was a benefit, because it was an alkali where acid was present. He had made two experiments before this case was heard with finely-divided gold. He used 5 per cent. of potassium, and he found there was hardly any difference in the amount of gold dissolved. He agreed with Sir Henry Roscoe that with cyanide of ammonia and carbonate of potassium there would be other products of various

natures. There was a number of actions occurring; but they would not affect the solution to any considerable extent. In his opinion, the solution specified by Simpson remained uninjured for several days—at least, three—quite long enough for the practical treatment of ores. Cyanide of potassium was not a staple body, but it would not change colour in the way Simpson's mixture did. Taken to the price of cyanide, he said, the chemically pure in the year 1880 would be 8s. or 10s. per pound; it was 11s. in 1887. The commercial kind was, perhaps, 1s. 6d. The chemically pure would not be useful for extracting gold from ores.

In answer to his LORDSHIP, WITNESS said that carbonate of ammonia was cheap.

Examination continued: He had dealt with, or seen dealt with, thousands of tons of ore. Witness then went on to describe experiments he had made with two beakers, into each of which a solution of 7 per cent. of cyanide of potassium and some water were put. In one beaker a piece of gold leaf was suspended between two pieces of muslin, the same as in the other. In one beaker he introduced an electric current, and passed it from the anode to the cathode. The time was taken, and the gold leaf with the current broke up and became disintegrated five times quicker than in the other. Faraday's method was followed, and there was no possibility of connection between the anode and the gold leaf. He found that Faraday's principle was perfectly correct. The gold leaf submitted to the electro was broken up, and it rapidly dissolved in the muslin bag. In another experiment the result was that the gold was not found on the cathode. He believed that if Rae's directions were carried out they would dissolve suitable ores. He had no hesitation in saying that gold would go into solution by that process. That would take place if the electric part were operative or not.

In 1887 was there any known method of extracting gold in cyanide of potassium without the destruction of the solution itself?—To my knowledge, there was no practical way of getting the gold out.

Mr. R. H. HARLAND, F.C.S., public analyst, &c., said that he had conducted experiments in respect to the process of the defendants. The object of these was to ascertain the difference in the gold dissolved in ore when electricity was used in tank "A" and when it was not. He began experimenting with 2 lbs. of ore, and increased it to 4 lbs., and then to 25 lbs. He essayed the ore he used before it had been through the process and afterwards. Where the electrical current was present the amount of gold extracted was 83.4 per cent., and in the case without the current 73.6 per cent.—a difference, roughly, of 10 per cent. in favour of the employment of the current. His last experiments gave better results than the former. In the course of his experiments he used the defendants' apparatus. The electrodes were of full size. With regard to the selective operation of cyanide of potassium, witness said that the operation began on the baser metals at the same time as on the gold.

Mr. RILEY, F.C.S., F.I.C., said that it had been known for many years that cyanide of potassium would dissolve gold. It required no inventive faculty to know that cyanide of potassium was a solvent which would operate upon gold ore; it was simply the application of a well known chemical solvent under special conditions. It was common knowledge in 1877 that cyanide of potassium was available for the solution of gold and silver ores. It was so used by Mr. Richard Smith in the School of Mines. Rae's process would be operative for the purpose of dissolving the gold if the gold were in a fine state of division. Simpson's also would be efficient.

In cross-examination, WITNESS said that prior to the plaintiffs' patent the knowledge that cyanide of potassium could be practically used to extract gold from ore was scattered through all the chemical books.

Mr. JUSTICE ROMER: Do you think that in 1887 any chemist would have doubted that if he had applied a solution of cyanide of potassium to crushed ore it would have dissolved the fine gold and fine silver?—It would if the gold were in a sufficiently divided state.

I am taking crushed ore containing fine gold and silver, and my question is, Would any chemist in the beginning of 1887 have felt any doubt that a solution of cyanide of potassium would have dissolved that gold and silver?—I should have had no doubt myself.

Do you think it would have required experiment to find that out?—I think it was generally known.

Was that within a practical limit of time?—Oh yes; it would dissolve it rapidly.

Mr. JAMES MOTTIE, F.I.C., of Edinburgh, said that in 1887 the fact that the cyanide of potassium would dissolve gold and silver was well known. There was no invention in the application of that knowledge to gold ore. Witness was present at the experiments of the defendants, the result of which, he said, was that the gold was dissolved more rapidly when electricity was used. Rae's process would be effective for getting gold into solution, but it was impossible that it could be a financial success because of the difficulty of getting the gold out of solution. Cyanide of potassium had been reduced in price from 17s. per lb. to 1s. per lb.

Cross-examined by Mr. MOUTON, WITNESS said that Faraday disclosed as much as any of the extracts relied upon in the particulars of objection, but in chemical literature there were more specific references to the solubility of gold in cyanide of potassium than those which the defendants relied upon. In 1885 the price of the cyanide of potassium he would use for this process would have been 2s. 6d. per pound. He considered that the electrical pressure and current with which Lord Kelvin worked was too small to produce any electrical result. In 1887 the process of getting the gold out of cyanide by zinc was not practicable—that was to say, only some of it could be got out. Witness had never tried the Pielstick process.

[The case was not concluded at the time of going to Press.]

SOME three months ago we announced the departure of Mr. E. Henry Davies, M.E., F.G.S., on a tour of professional inspection, to the United States. Our readers will now be interested to know that Mr. Davies has returned safely from his wanderings among the mines of California, Colorado, and North Carolina. He arrived in London on Monday last, and gave an early call at the offices of *The Mining Journal*. Many of our readers are personally acquainted with Mr. Davies, and all of them know him not only through his frequent and valued contributions to the Journal, but also from his works on mining, which are accepted as standards on the subject on both sides of the Atlantic, and will join with us in welcoming him home again.

ANARCHIST ATROCITIES are becoming more numerous every day, and the indignation of every honest person is roused. These wicked and foolish men fancy they can remove trouble and abuses of our social system by deeds of violence! What a mad idea! One might as well expect to cure our bodily ills in the same way. But if we are troubled by any bodily complaint, what do we do? Why we choose mild and gentle methods to put ourselves right. We turn to Holloway's Pills and Ointment, and we find relief. There is no anarchical remedy about their methods, and what is the consequence? Simply this, they never fail, they never miss their mark. Sickness and misery fly out of the window, and bright, cheery health comes in at the door.

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Forms of Application for the £1 Ten per Cent. Preference Shares can be obtained from the Company's Bankers, Messrs. Brown, Janson, and Co., 32, Abchurch Lane, London, E.C., or of the Secretary, at the Offices of the Company, 7 and 8, Great Winchester Street, London, E.C., together with copy of original Prospectus, Annual Report and Balance Sheet, and Map of the Mines.

By order of the Board,

J. H. S. THOMSON, Secretary.

7 and 8, Great Winchester Street, London, E.C.
July 26, 1894.

THE QUEEN'S BIRTHDAY UNITED GOLD MINES, LIMITED.

The following cables have been received from Mr. W. T. Hansford, the Company's Local Secretary:—

CABLEGRAM.—"Danolly, July 19, 1894.—Queen's Birthday Mine, Central Shaft—Have struck reef at a depth of 330 feet very good."

CABLEGRAM.—"Danolly, July 19, 1894.—We have crushed 100 Centre Shaft, 300 feet level: yield 25 ounces gold; and 100 tons from 4.0 feet level for a yield of 70 ounces gold. The developments of the mine fully justify the expectations which have been formed."

N.B.—The Directors are also expecting advice of a crushing of rich stone from the Belgium Reef (assay 2 ounces gold per ton), and have received advice by mail of a visit of inspection paid to the Company's property in June last by the Minister and Secretary of Mines of the Colony of Victoria, who expressed themselves very gratified and impressed with the Company's future prospects and the magnitude of the mines and works.

REVIEWS.

TRAVELLING IN IMAGINATION.

Mountain, Moor, and Loch. Illustrated by Pen and Pencil, on the route of the West Highland Railway. (London: Sir Joseph Causton and Sons.)

Since this artistic and readable book made its appearance, we have reason to know that it has been well received and has found favour with a vast number of the travelling and reading public. Through whatever streets one may walk, or into whatever bookseller's shop one may curiously gaze, we are bound to see a large number of these books placed in a most prominent position, testifying to the demand for the work that has already set in. With it we are ourselves eminently pleased. Being well-written and profusely illustrated, it is as interesting as a novel and certainly is invaluable as a holiday companion. Whilst reading it one can easily imagine oneself journeying in imagination through the scenes described therein, and whilst enjoying the beauty of the sea-side, can, at the same time, gaze with rapture upon the sublime and charming pictures of Scottish "mountain, moor, and loch." As we have said, it appeals to more than one section of the community, nor will it appeal in vain. We unhesitatingly recommend it.

ANOTHER TRADE INDEX.

Ryland's Hardware. A Complete Directory of Midland Manufacturers, 1894.

Ryland's many and various directories have been so long before the world, and so long appreciated, that a further and much-needed one is sure to find speedy and general acceptance. The volume before us is offered as a complete guide to the great Midland hardware district, which comprises North and South Staffordshire, Warwickshire, and Worcestershire, and on looking through its numerous pages we find that the information could not be presented in a handier form, nor be improved upon in the matter of quantity. It possesses many novel features, which enhance its value. Such, for instance, is a geographical arrangement of manufactures, with its alphabetical index. We have no doubt this work will be received with favour equal to that accorded to the other directories published by this firm.

THE IMPERIAL INSTITUTE YEAR BOOK, 1894.

Since the publication of the first issue of this Year Book in the year 1892, it has naturally increased in bulk and importance in each succeeding issue. The volume for 1894 is naturally more full of valuable information than the preceding ones. Its method, scope, and object are by this time too well-known to need reiteration. It is, of course, a compilation of the natural resources and trade of the Colonial and Indian sections of our Empire, and, undoubtedly, as a single volume, it is the most valuable published.

WENTWORTH GOLD FIELDS PROPRIETARY.

The following cablegram has been received from the mines:—"During the past four weeks we have crushed 770 tons of ore, yielding 930 ounces gold. The new main shaft is down 795 feet. A change for the better has taken place at the 500 feet level of the Phoenix underlie shaft. In the winze on the Phoenix No. 2 vein 400 feet level appearances are favourable for striking the main Phoenix vein."

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CONTENTS

Of this Number of "The Mining Journal, Railway and Commercial Gazette," July 28, 1894.

NEW PATENTS	813
CONTRACTS OPEN	813
OUR INQUIRY COLUMN	813
MECHANICAL ENGINEERING, &c.	814
Turnbull's Patent Steam Traps	814
SPECIAL CORRESPONDENCE: Colonial and Foreign.	814
Our South Australian Letter.	814
THE ZINC ORE DEPOSITS OF SOUTH-WESTERN NEW MEXICO	814
NOTES ON THE PHILIPPINE ISLANDS	815
MEETINGS OF MINING COMPANIES—	815
Crown Reef Gold Mining Company	815
United Langlaagte Gold Mining Company	817
East Rand Proprietary; Cumberland; Lion (Mozambique)	817
Alabama Coal, Iron, Land and Colonization Company; Wheel	818
Basset	818
Wheel Friendly; Quebrada Railway Land and Copper	819
New St. Augustine (Limited)	820
LEGAL INTELLIGENCE	820
REVIEWS	821
LEADING ARTICLES—	821
New Enterprise in Gold Mining; Philanthropic Mining	821
NOTES AND COMMENTS	822
OUR CITY ARTICLE	824
FORTHCOMING MEETINGS	824
DIVIDENDS ANNOUNCED	824
COMPANY FINANCE	824
QUEEN'S BIRTHDAY UNITED GOLD MINES (LIMITED)	825
LONDON EXHIBITIONS (LIMITED)	825
THE METAL MARKETS—	825
The London Metal Market	825
LATEST FROM THE MINES: Cablegrams and Telegrams	825-827
"THE MINING JOURNAL" SHARE LIST	827
THE EDITOR'S LETTER BOX	827
MINING IN CORNWALL AND DEVON	827
REPORTS FROM THE MINES	827
PROVINCIAL SHARE MARKETS	830
JOINT STOCK COMPANIES—New Registrations	831
MISCELLANEOUS MEETING	831
New Zealand Thames Valley Land Company (Limited)	831
ADVERTISEMENTS—(See Index to Trade Advertisements, p. 810).	

LONDON: JULY 28, 1894.

NEW ENTERPRISE IN GOLD MINING.

THE movement of money, which is a natural consequence of the steady rise now proceeding in "gilt-edged" securities of all kinds, will almost certainly tend largely in the direction of gold mining enterprise. Speculation, once revived, is sure to turn to gold, which has never provided so attractive an opening for capital as at the present moment. The extraordinary growth of the Witwatersrand fields, where the remunerative character of the formation was at one time disputed, is a magnificent incentive to the mining engineer and the capitalist. The gold production of the Transvaal is now at the rate of eight millions sterling a year, and so far from being dependent upon extraordinary finds it is carried on by the application of economical and labour-saving machinery to quartz going as low as 4 dwts. to the ton. It is certainly a remarkable instance of

the technical advances which have been made in gold mining on the Witwatersrand that with the recent continued increases of dividends—a splendid list of which has been declared for the past half-year—the average richness of the ore crushed is less by ½ dwt. than what it was formerly. All the same, British capital seems rather inclined to let these results stimulate it to similar enterprise further afield than to encourage it to new undertakings in South Africa. It is no doubt true, as has been said, that the measure of the Witwatersrand gold output is simply the amount of capital placed at the disposal of the local managers, but all the same there is no immediate probability of a "boom" in South African mines. The financing of mineral properties in that part of the world has got pretty well into the hands of certain groups of big financiers, including the ROTHSCHILDS, and the little capitalist, the ordinary speculator on the mining market, hardly feels strong enough to intrude upon their domain. Thus, we hear that nearly all the promising claims on the West Rand have been lately snapped up by the Hon. CHAS. RHODES and one or two operators upon a huge scale, and the deep levels have been almost entirely monopolised by syndicates of great power and influence. The same thing applies to properties in Matabeleland, and it is only in some of the outlying districts of the Transvaal, where the ore is very low grade indeed, that the outside capitalist has a chance of participating. This is hardly the state of things which tempts British speculation, and it explains why Rand shares, though they are so firm, produce after all such a small volume of actual transactions in England. In fact, an increasing market is being found for them on the Continent, where the investor, happily for himself, is not subject to the sort of superstition which seems to prevail in England in favour of mining as a pure speculation. In other parts of the world there is, however, considerable prospect of a heavy increase in gold mining enterprise. Our readers are pretty well informed upon the prospects of mining in Western Australia, and the progress being made out there is, on the whole, distinctly encouraging. The latest reports have told, if anything, too flattering a tale, and we would warn our readers not to lay too much importance upon the discovery of alluvial gold. So far, the milling power of the Western Australian gold fields is inconsiderable, and it is clear that the great prospect of the fields will lie in a repetition of the Transvaal triumphs in the successful treatment of low grade ore. It must not be forgotten that in spite of the terrible depression in the trade of the United States a good deal of renewed activity has lately been shown in the auriferous industry of that country. Last year the American production of gold was three million dollars in excess of that returned for 1892. This figure is certain to be very largely exceeded when the new enterprises now being put in hand are in full working order. Some capitalists are spending a considerable amount of money in prospecting for gold in New Mexico, where the existence of vast auriferous deposits has long been unquestioned. According to one well known scientist, who made a thorough examination of the country, the value of gold in placers alone may be estimated at a hundred millions sterling, and this does not take into account the auriferous quartz which is supposed to follow the great mountain range right through the territory. Even after allowing for the exaggeration which seems to be unavoidable in any estimate of a country's auriferous resources, it is certain that in the neighbourhood of Santa Fé there are sufficient deposits to justify the carrying on of operations upon a very large scale, and at the present moment there is an enormous influx of miners into the district, reminding one of the rush which took place in 1879. A similar "boom" is being experienced in the Guianas, where enormous supplies of gold have been found on the right bank of the Oyapock. As the ownership of the territory is in dispute, it is practically a No Man's Land, upon which everyone has the right to carry on operations as they may think fit. The amount of gold picked up by individual miners has been in excess of that found upon any other gold field, and if only facilities were offered for the systematic treatment of the metal, the new deposits lying between French Guiana and Brazil would become exceedingly prolific. These, and many other discoveries that are being made in different parts of the world, are the direct outcome of the necessity which is becoming increasingly urgent of an active enterprise in gold mining, and when capitalists begin to invest their money more largely in this direction it is likely that many of the disabilities from which industry and commerce are now suffering will be removed. In any event, there seems to be abundant scope for those capitalists who wish to strike out new departures, and secure more remunerative returns than is now possible in South African gold mining.

PHILANTHROPIC MINING.

IT is generally taken for granted that the acme of human dulness is exemplified in a Government Blue-Book; we venture to think, however, that no one connected with British mining could devote a few hours to the study of the recently published Mineral Statistics for 1893, without finding therein food for much interesting, though perhaps not exhilarating, reflection. Although it is popularly said that figures can be made to prove anything, we fear that it would require an exceptionally dexterous manipulator to extract any grains of consolation for our mining industry from the figures now before us. Looking first at our great British staple of coal we see that the production in 1893 showed a falling off of over 10 millions sterling from that of the previous year, in spite of the price averaging about 6½ per cent. higher. These figures can scarcely, however, be looked upon as an indication of any real decadence in coal mining; they rather serve to illustrate in a very forcible manner the amount of loss and damage which a great strike in an important industry can inflict on the nation at large. We have, however, been privileged to receive recently

such a succession of incisive object-lessons on the same subject from both sides of the Atlantic, that it must have been brought home even to the dullest of demagogues, and that mere writing about it must assuredly be superfluous. A glance at the general summary of mineral produce shows that there has been a falling off during 1893 in nearly every branch of mining as compared with the previous year, the total value being about 11½ millions sterling less. As already stated, the greater part of this diminution is due to the diminished production of coal, which one item alone forms 79 per cent. of the value of all the minerals raised.

Great Britain has been noted as a metal-producing country from the very commencement of our historical record, and we are in the habit of thinking that it still maintains its ancient reputation; let us, therefore, examine our position as metal producers a little more closely. We find in the first place that the total value of all the metals produced by us is set down at a little over 10 millions sterling, whilst of this comparatively small amount iron is responsible for nine-tenths. The total is over a million and a quarter less than in 1892; the greater part of this diminution is, however, due to the decrease in the output of iron, and this may be dismissed as being in fact only another evidence of the far reaching influence of the great coal strike. The values of the remaining metals stand at very nearly the same amount as in the previous year, the largest portion by far thereof being formed by the output of tin—the product *par excellence* of Cornwall. Copper mining is dead; lead is dying fast; zinc has never attained to any great importance. Tin mining is, therefore, all that is left to us. It is not so many years ago that Britain was the leading factor in the tin production of the world; where is it to-day? The value of the tin imported into Great Britain in 1893 was £2,012,000; that of the tin produced by us in the same year was about £785,000—barely enough for our own consumption. Yet we are assured by those best qualified to judge that Cornwall is by no means exhausted, and that there is still plenty of tin to be won there, whilst some of the leading mines never looked better. At the same time it is abundantly evident that tin mining is not to-day a highly remunerative industry. No doubt foreign competition has much to do with this fact—competition from countries where the ore is more easily and more cheaply won, and where the miners are not subject to the onerous dues and vexatious interference of ground landlords. Apart from these reasons, however, there is another very cogent one, evidence of which is supplied by this same volume of mineral statistics. We see that the Cornish mines produced in 1893 some 12,000 tons of black tin, whilst the stream works—which simply treat the refuse that the mines allow to run to waste—produced 1200 tons of black tin or 10 per cent. of the above quantity. The stream-works ore is, however, of poorer quality than the ore direct from the mines, so that the money value of the output of the former comes to 7½ per cent. of the value of the latter. That is to say, the mines allow the 13th part of their produce to run to waste, which amount the streamers are able to collect at a profit; how much more tin, escaping both the miners and streamers, is totally lost, is quite unknown. Is there any other industry in the world, we wonder, in which the producers, after going to enormous expense to extract and prepare a valuable article, and after paying heavy royalties for the right of extracting it, deliberately fling away the 13th part of their product, and allow others to collect it, simply because their machinery is too imperfect or their methods of work inefficient? Absurd as this sounds, this climax is only reached when we find that the stream workers pay nothing at all to the miners who have raised and crushed the tin stuff for them, for the privilege of working this refuse, but pay dues instead to the ground landlord. It is surely not surprising that tin mining thus conducted is not a profitable industry—except to the landlord!

Tin miners are fond of quoting what they look upon as an analogous case in gold mining, where, as they truly say, far more than 8 per cent. of the value of the ore is often left in the tailings. This statement is correct, but in this plausible argument the fact is omitted that the gold which is left does not in the present state of metallurgical science pay to extract, whereas the 7½ per cent. of tin extracted by the stream workers does pay them well enough, otherwise they would not continue their operations. Moreover, we have no means of knowing how much tin is being lost by the miners, which does not pay even the streamers to collect, but which might be profitably saved by the employment of improved machinery. Nor do we think that many instances can be quoted in which gold miners would be found to emulate the generosity of their tin mining brethren by giving away their tailings without a very substantial *quid pro quo*—far less for nothing at all. In spite of anything that may be urged in palliation, the lesson conveyed in the above figures is too evident to admit of being explained away. If tin mining is dying in this country, one at least of the reasons is that the technical science of Cornish miners is not equal to that of their competitors abroad, and we feel that we are doing them good, albeit unwelcome, service in emphasising this fact. It almost looks as though Cornishmen were fast falling into the position now occupied by the Chinese; after having been for centuries the pioneers of engineering invention, their energies in this direction appear to be exhausted, and they are passed by other nations who had previously profited by their discoveries. Unless the miners of Cornwall bestir themselves and cheapen their product by the introduction of modern automatic ore-saving machinery, they must be content to lose the only industry upon which they still retain a hold. It can hardly be said that want of capital is the cause that prevents such introduction, seeing that the value of the tin lost by the miners and collected by the streamers in one year would go far to equip all the leading Cornish mines with high-class machinery. A truer cause seems to us to lie in the stolid conservatism of the Cornishman in all that touches his main industry. Respect for the wisdom of one's ancestors is, no doubt, an admirable quality, but, like other admirable qualities it may be carried too far.

NOTES AND COMMENTS.

THE policy hitherto pursued by the East Rand Proprietary Company is the one which prudence and judgment alike would recommend. One sentence in which that policy was formulated so succinctly describes it that it is worth quotation. Here it is stated to be "a persistent and methodical pursuance of fully demonstrating the value of the reefs traversing the properties, and developing the most promising sections, prior to the erection of costly machinery; as, in their [the directors'] opinion, it will be far easier to find further working capital, if required, when the mines have been well developed, and their value by assay and test crushings has been fairly proved, than to expend large amounts of money in the erection of machinery before such developments have taken place." Conformably to this course, the reports of engineers and managers upon various sections of the property have been collated, and, taken together, are highly satisfactory. Already the views entertained as to the future prospects are of the highest and most sanguine nature. A position well up in the mining companies of the Rand is confidently anticipated for the East Rand Proprietary Company, and if a tithe of these anticipations should turn out to be well founded, the shareholders will have abundant cause for congratulation. If not, they will at least experience the satisfaction of having taken a bold stroke for fortune.

THE reconstruction of the United Langlaagte Gold Mining Company, adopted recently at Johannesburg, appears to have created some difference of opinion as to its advisability. It finally received the support of an overwhelming majority of the shareholders, but not until one of the directors had thought it worth while forwarding a written protest to the meeting. The ground of the objection taken is simply that the financial position of the company is sufficiently sound at the present time to render any "financial manipulations" unnecessary. This view was, however, endorsed by only a very small section of the company's shareholders, and the scheme, as already stated, received the assent of the meeting. The main lines of the reconstruction scheme are the reduction of the present capital of £100,000 to £62,500, to be represented by 62,500 fully paid shares to be distributed among the present shareholders in the proportion of five for eight, and the subsequent addition of 87,000 shares of £1, of which 30,000 are to be offered to the shareholders of the company, 36,000 devoted to the purchase of the deep levels of the company's present claims, and 21,500 held in reserve for future disposal. Thus the company will have an extended sphere of operations, with a large addition to its capital to meet the charges which must necessarily be incurred. With the phenomenal success which has recently attended deep level mining in view, there would appear to be a hopeful future for the company.

MR. TAVENOR'S forecast of what lies in the future of the Lion (Mozambique) Company was undoubtedly optimistic, but its optimism was supported by an abundance of quotations from Mr. Alford's report, in which the configuration of the reefs, the facilities for working, and the whole description of the property from a mining point of view, were set out in detail. These are early days to speak of the prospects of a mine, and that taken into consideration, Mr. Tavenor must be admitted to have covered the ground comprehensively and in detail. The present is an instance of how much depends on the development of a country upon adequate railway communication. Should the proposed new railway be constructed—and it appears that Mr. Rhodes has seriously taken the thing in hand, which is far on to the same thing—the Lion property will reap a great advantage from the ease with which all the necessary stores and machinery which are needed can be brought to the mine. As the various territories in the neighbourhood become more and more developed, the operations carried on by the company will be pursued to greater advantage.

SOME disappointment arises naturally from the report of the directors of the Alabama Coal, Iron, Land, and Colonisation Company. The business has not been so large, nor have the returns been so satisfactory as those of the past year. The cause, however, is not far to seek, and lies in a direction absolutely beyond the control of the board. Even such a country as America occasionally suffers from commercial depression, and it is at once obvious that a company carrying on such a diversity of operations as the one under notice must experience the full force of economical vicissitude. While, therefore, there may be cause for disappointment in the matter between the fawn-coloured covers of the Alabama Company's report, the shareholders may at least rest assured that their concern is in good hands, and that the best is being done for their interests. The law of reaction obtains nowhere with greater constancy and force than in the sphere of commerce. This fact is a hopeful one, for it suggests that the unusually despondent outlook in Alabama at the present time must before long brighten, and among the multifarious changes which will follow upon such a re-awakening there will be increased prosperity for the comprehensively-named Alabama Company.

THE new departure taken by the Cumberland Lands (Limited) should be a starting point to better things. As the Chairman more than hinted in his opening speech at the recent extraordinary meeting, there have been sad experiences in the past, but it would seem from the shortest summary of the company's present position that there are very few evil results remaining behind. Briefly, the company possesses a valuable freehold estate of some 72 square miles altogether free from encumbrances. It is perfectly obvious, however, that the "proper management" postulated by all the speakers at the recent extraordinary meeting as the *sine qua non* of success necessarily presupposes the establishment of a board of local control. The

proposal to manage from London a property of the kind we have indicated appears at first sight to stand self-condemned. The unanimous acceptance of this view by the shareholders augurs well for the Cumberland Lands.

UPON the occasion of his retirement from the Presidency of the South African Association of Engineers and Architects, Mr. Arthur H. Reid delivered some weeks ago at Johannesburg an interesting and pointed address, in which he dealt, as was inevitable, largely with mining. By implication it would seem that at present the statistics obtainable in the district are hardly so full or accurate as they might be. He credits the local Chamber of Mines with the performance of a highly useful work in originating a series of accurately compiled monthly returns. This work, however, is one which could more thoroughly and easily be compassed by a Government armed with plenipotentiary authority than by an institution, however widely organised, and it is upon that account a satisfaction to know that the Government of the South African Republic will shortly publish detailed statistics as to the workings and cost of the mines in their territory. When the magnitude of the industry is taken into account it must seem strange that hitherto so little attention has been paid to this certainly not unimportant branch of departmental work.

SPEAKING of the mine machinery in use there, Mr. Reid confesses his surprise at the pitch of comparative perfection to which it has attained. The tremendous returns, and the elaborate and costly electrical plants do certainly suggest the contrast between the position of to-day and when, in the time of old Ferreira camp days, the five stamp mill "used to keep the camp awake," until, we presume, the drowsy mind of the sleeper worked the persistent thumps of the machine into some novel phase of the ever startling confusion of a dream. Mr. Reid has tabulated the leading features of the great improvement which has taken place, which are mainly the centralisation of power stations, the increased use of electricity, the introduction of sorting stations, larger geared winding stations, and the direct filling system into the cyanide process. This brief narration of the leading differences between the new and the old systems is sufficient to show how great has been the advance in a short period. The world is moving rapidly in this as in every other branch of practical invention.

THE *Bulletin des Mines* has had recourse to the governmental statistics of Matabeleland for evidence as to the progress being made in the opening up of that country. Its rapid development is shown by the fact that "pendant les huit premiers mois de l'année, il n'a pas été délivré moins de 507,020 timbres-poste, d'une valeur de £5416 8s. 4d., ce qui montre l'activité croissante des transactions." Here, certainly, as our contemporary remarks, is forcible evidence of the growth of affairs in that far-off country. Nor is there the slightest ground for discouragement in the fact that at present the operations are necessarily restricted and primitive. That must inevitably be so for a time at least, and there are reports to hand that the requisite machinery is arriving, together with many additional miners, so that in all probability at the end of 12 months a great improvement will be sure to have taken place. A glance at the list of names engaged in directing the mines there is sufficient to show that no unnecessary delay is likely to take place.

ONE element in the expensiveness of South African mining, frequently overlooked, but none the less important, is the increasing scarcity of native labour. At present in districts £3 a month is paid for the natives—a rate abnormally high in view of his capabilities and characteristics as a worker. The excess of this sum over the lower wages paid elsewhere amounts, according to a trustworthy computation, to £180,000 per annum on the whole industry in the more expensive districts. It will thus be seen that the matter is one which the local mining community can, under no circumstances, afford to neglect. At a recent sitting of the Johannesburg Chamber of Mines the arrangements made for continuing the supply of the much-sought-after aborigines were laid before the assembly. It appears that through the outbreak of hostilities to the North the full measure of what the executive committee are able to effect under ordinary conditions has not been done. Wars and rumours of wars, even more than the branny bottle, are a potent influence of disturbance. This apart, however, the work of importing native labour to the busier districts can be pursued to the greatest advantage, and may become one of the most useful, of many useful, offices performed by a Chamber of Mines. Probably it will be resumed after the pacification—if, indeed, it had not already been resumed—and its benefits will again be enjoyed.

THE reported discovery of a gold-bug in Mexico is interesting insectivorously, metalliferously, and economically. Peculiarities of diet have frequently been the distinguishing characteristics of many units in the evolutionary chain. Ostriches have developed an unreasoned partiality for salmon tins. We have ourselves seen elephants dine sumptuously off newspapers. But the aristocrat of the banquet is certainly the gold-bug. His bill of fare is exclusive; it is gold, gold, gold. Nothing else—not even silver—will suit his delicate palate. The unearthing of this miserly insect has come too late for adequate literary treatment. Addison ought to have known of it. Then the world would have had a priceless addition to the *Spectator*, and the prince of humorists another impetus to his never-flagging imagination. The little creature has, however, opened the possibility of a finale on the directorial trumpet in something like this strain:—"In conclusion, the directors have to regret unfeignedly that the excessive voracity and the unprecedented ravages of the gold-bug have turned a prosperous mine into an unproductive and barren desert, and so necessitated the liquidation of what it was hoped would have been one of the most prosperous companies in the world."

OUR CITY ARTICLE.

FRIDAY EVENING.

THE MINING MARKET.

A dull beginning.—Chartered rise.—A satisfactory carry-over.—Markets strengthen.—Gold, Lands, and Indians firm at the close.

The dull tone which characterised the markets at the opening on Monday has been superseded during the closing days by an assertion of considerable buoyancy. A spiritless inactivity ruled in both sections of the Mining Market at the opening of the week. From the mere absence of anything approaching a demand for shares, the quotations exhibited a decided tendency to drop away. Falls did not exceed in most instances $\frac{1}{4}$, and were obviously due to the prevailing depression, and not to any change in prospects. Nearly the whole body of land and gold shares lost the turn of the market. The exceptions in the one case were Chartered, and in the other Simmer and Jack, where there were distinct renewals of strength. In the Miscellaneous market the one feature was an unexpected jump of Day Dawn Blocks, where some remarkably favourable reports from the property produced a sudden rise. Even Indians could not but be susceptible to the prevailing weakness, and were distinctly easier. Wynaads and Harnhall were the exceptions at strength. There is the same record without any qualification to be made for Tuesday's markets. A state of pronounced inactivity ruled in both sections. The exceptions to the general movement downward, which in the South African market characterised gold, land, and diamond shares, were Chartered, which remained strong, and City and Suburban and Champ d'Or, which advanced, though to no very considerable extent. In the Indian and miscellaneous quarter there was hardly a single improvement. The same causeless depression which has been the feature now for some days remained, and one or two sellings and consequent droopings were caused. Nundydroogs were firm on the promising reports from the property, but were, with Brilliant St. George, the only bright feature of the market. The carry-over was a light one, and consequently was rapidly effected. Considering the past depression the making up prices were more favourable than could have been expected. Rates ruled easy all along the line, and there was no difficulty experienced. As usual the tone immediately following was a bright one, and led to favourable expectations being entertained for the future. Chartered were in great demand, and closed $\frac{1}{4}$ up on the day. Beyond that business was very limited. On the next day, Thursday, both markets were in a decidedly firmer condition. Business was brisker, and buoyancy the prevailing characteristic all over the market, and especially with gold and land shares. Indians participated in the upward movement, and rises were recorded almost without exception. The condition of the markets at the close is, in fact, more encouraging than has been the case for some weeks.

British Mines.

The Cornish market is in a depressed and stagnant condition, and with the present outlook for tin no one seems disposed to buy, although prices generally are ridiculously low. On the other hand, holders are in no hurry to sell, the belief being general that tin cannot long remain at £66 for Straits. Some progress has been made in "forking" at Dolcoath this week, and it is to be hoped that there will be no further difficulties. Killifreth have been fairly dealt in, and close about 60s. Carn Brea are steady, but only a few shares have changed hands. Risen: None. Fallen: Dolcoath, £2; South Crofty, 2s. 6d.; and Wheal Kitty, 9d.

South African Shares.

There was not a very hopeful commencement to the week in the Mining Market. Business was as dull and spiritless as ever, and whatever movement there was in the South African section was certainly not in the direction of improved quotations. Simmer and Jack, which hardened to $\frac{1}{4}$, and Kleinfontein were the conspicuous exceptions to the prevailing depression. Recession to a small extent took place in Crown, Geldenhuis Estate, Meyer and Charlton, Stanhope, Transvaal Gold, Princess, Village Main Reef, and Wolhuter. The news that the New Rietfontein mill had closed down lost some of its effect by anticipation, and the decline, upon that account, was not quite up to the extent which might have been expected. Land shares generally drooped. Chartered were an exception to the rule, however, at a small rise, due to the reports as to the activity of the operations being pursued on the property. Becha, on the other hand, declined. In this section of the market relapses took place in Exploring, South African Exploration and Mozambique. The principle diamond shares remained dull and inactive. Tuesday passed without bringing any activity to this section of the market. Business fell away to even a greater extent, with the result that there were several offerings, which caused prices to droop. In the gold department there were enquiries for City and Suburban, which advanced to $\frac{1}{4}$, and for Champ d'Or, which hardened to $\frac{1}{4}$. The greatest recession took place in Jubilee, which fell $\frac{1}{4}$ to $\frac{1}{2}$. Langlaagte, Salisbury, Wolhuter, Worcester, and Rand Mines were all $\frac{1}{4}$ lower, and slight relapses occurred in the prices of Primroses, Sheba, Bantjes, Block B, Buffelsdoorn, both Mays and Virginia (Transvaal). Consolidated Gold Fields were not so firm. With the exception of Chartered, which remained firm and closed at 28s. 9d., Land and Diamond shares were rather flat. Becha, still remained depressed, and both De Beers and Jagers were less buoyant, the former closing at $\frac{1}{4}$, and the latter at $\frac{1}{2}$. A quick and easy carry-over was effected in the South African market, the account being but a light one. Rates were very easy, Diamond shares going over at from 6d. to 1s., Chartered at from 4 to 6 per cent., and Gold Fields at an average of 5 per cent. On the whole the comparison of prices with the last account is a favourable one. Chartered showed a substantial improvement, and there were also advances in City and Suburban, Consolidated Gold Fields, De Beers, Jagers, Durban, Explorings, Henry Nourse, Heriot, Jubilee, Robinson, Wemmer, and others. Falls, on the other hand, were recorded in Crown Reef, Ferreira, Rietfontein, Langlaagte, Chimes, Salisbury, Simmer and Bechnanland. An improved tone manifested itself after the carry-over. Chartered received steady support, and rose $\frac{1}{4}$ on the day to 30s. 9d. Becha, too, rallied to some extent. Explorings and South African Gold Trust were also harder. The feature of strength in gold shares was City and Suburban, which recovered 7-82 to 134. Gold Fields Deep went up to $\frac{1}{4}$ buyers, Ferreira, Geldenhuis Estate, New Chimes, Transvaal Gold, and Worcester were all $\frac{1}{4}$ better, and Consolidated Deep Level improved the turn. Crown Reef lost $\frac{1}{4}$ at 74, and a slight retrogression was noticeable in the cases of Henry Nourse, Robinson, and Kleinfontein. Diamonds were fairly steady, a rise of $\frac{1}{4}$ occurring both in De Beers and Jagers. After the depression which had prevailed so long, it is a pleasure to be able to record the distinct improvement in

tone which asserted itself immediately after the carry-over, and was maintained throughout Thursday. Gold shares were especially active, rises occurring in Cities, Crowns, Primroses, Wolhuter, Champ d'Or, Henry Nourse, George and May, Sheba, and May Consolidated, and slightly better prices being bid for Jumpers and Salisbury. Land shares were better all along the lines. Chartered were extremely active, and were at one time quoted at 31s. 6d. Finally, however, they closed at 30s. 9d. Becha were not so buoyant, and eventually closed at 25s. There were also rises in Explorings and Zambesia. In the Diamond market De Beers relapsed to 144, while Jagers hardened to £13. Throughout to-day the firmer tone has been maintained in the South African market, especially in Land shares, which were very strong. Chartered remained firm, and there has been a demand for Gold Fields, which closed at 24, bid. There have been no special features to record on the ordinary gold shares, which, however, have remained generally firm.—Risen: Becha, 1s.; Chartered, 3s.; Champ d'Or, 1s. 3d.; Consolidated Gold Fields, 2s. 6d.; City and Suburban, 10s.; Exploring, 10s.; Henry Nourse, 1s. 3d.; Moodie's, 6d.; South African Gold Trust, 1s. 3d.; Transvaal Estates, 6d.; Zambesia, 2s. 6d.—Fallen: African Gold Recovery, 12s. 6d.; Agnes Block, 1s.; Bantjes, 6d.; Block B, 1s.; Central Zoutpansberg, 3s.; Champ d'Or Deep, 6d.; De Beers, 2s. 6d.; East Rand, 1s.; Geldenhuis Estate, 2s. 6d.; Glencairn, 1s.; Gold Fields Mashonaland, 1s. 3d.; Johannesburg Waterworks, 6d.; Langlaagte, 5s.; Lisbon 3d.; Luipard's Vlei, 6d.; May, 1s.; Meyer and Charlton, 2s. 6d.; Mashonaland Agency, 1s. 3d.; Modderfontein, 6d.; New Jagersfontein, 2s. 6d.; New Primrose (allow dividend), 1s.; Ocean Development, 1s. 3d.; Otto's Kopje, 3d.; Orange Free State, 5s.; Paarl Central, 1s.; Princess, 1s. 3d.; Randfontein, 6d.; Reads Drift, 6d.; South African Exploration, 5s.; South African Trust and Finance, 1s.; South Land (fully paid), 6d.; Simmer and Jack, 2s. 6d.; Spes Bona, 1s.; South Reef, 3d.; Transvaal Exploration, 1s.; United Langlaagte, 2s. 6d.; Van Ryn, 1s. 3d.; Wemmer 2s. 6d.; Worcester, 1s. 3d.

Miscellaneous Shares.

Depression ruled in the Miscellaneous market as elsewhere on Monday. The one phenomenal rise in Day Dawn apart, which carried them from 5s. 3d. to 8s. 6d., there was but little to interest the speculative mind. Against this there were falls in Australian Broken Hill, Kapanga, and Bonnie Dundee. There was a tendency to droop amongst Indian shares. Balaghat fell to 5s. 6d., Champion Reef were $\frac{1}{4}$ lower at 34, and Ooregum ordinary and Ooregum preference suffered shrinkages of $\frac{1}{4}$ each at 34 and 34 respectively. Gold Fields of Mysore were lower at 1-32, Mysore Reefs reacted to 13s. 6d., and the two Nine Reefs were somewhat easier, Rio Tinto fell $\frac{1}{4}$ to 12 $\frac{1}{2}$. A monotony of dullness continued to depress the Indian and Miscellaneous market on Tuesday. Day Dawn Block did not maintain their upward movement, but closed at 7s. In the Indian section the prevailing dullness occasioned slight losses to Mysore Reefs, Mysore Gold, and Champion Reef. Guston and St. John del Rey were both a trifle weaker. Firmness was, on the contrary, exhibited by Nundydroog, which recovered 6d. to 29s. Trifling recessions occurred in Australian Broken Hill, Poorman, Callao Bis, and Colombian Hydraulic and New Queen. In the Miscellaneous market the account was arranged with the greatest ease. The making-up prices were generally rather lower, but rises have occurred in Brilliant and St. George, Day Dawn Block, Nundydroog, and Tolima. But little business for the new account was transacted, and the market was in that sensitive condition upon which a comparatively small call or demand would produce a disproportionate effect. Champion Reef were strong at a rise of $\frac{1}{4}$ to 34, while the former tone extended to Ooregum at 34, and to Nundydroog at 29s. 9d. Buying of Day Dawn Block was resumed, and the shares improved 6d. to 7s. 6d. Rio Tinto rose $\frac{1}{4}$, and closed at 12 $\frac{1}{2}$. Activity to an unusual degree prevailed in the Miscellaneous market throughout Thursday. This was especially the case in Indian shares, which were buoyant beyond all anticipation. Mysore West rallied 1s. 9d. to 9s., and Mysore-Wynad sympathetically hardened to the extent of 3d. at 3s. 6d., on good news from the property. Gold Fields of Mysore were 1s. 6d. higher at 21s. 6d., Balaghat rose 1s. to 6s. 6d., and Mysore Reefs rose 1s. to 13s. In other directions there were improvements in Broken Hill Props., De Lamar, Harquahala, Poorman, Colombian Hydraulic, Holcomb, and Lisbon. Miscellaneous shares have continued firm to-day, but the best section of the market has been the Indian section, where considerable strength has been manifested, especially by Nundydroogs and Mysore West. Here, as in the other market, the indications at the close are unusually hopeful.—Risen: Alaska, 2s. 9d.; Balaghat, 6d.; Brilliant, 2s.; ditto Block, 1s. 3d.; ditto St. George, 2s.; Broken Hill Proprietary, 1s., allow dividend; Callao Bis, 3d.; Day Dawn, 1s. 3d.; Gold Fields of Mysore, 1s. 3d.; Montana, 6d.; Mysore West, 1s.; Nine Reef (9s. paid), 6d.; Nundydroog, 1s. 3d.; South-East Mysore, 6d.—Fallen: American Belle, 6d.; Bayley's Reward, 1s.; Bonnie Dundee, 3d.; Carrington, 6d.; Colombian Hydraulic, 6d.; Don Pedro, 6d.; Elkhorn, 6d.; Glenrock, 3d.; Kangarilla, 6d.; Macate, 3d.; Moorman, 6d.; Mysore, 2s. 6d.; ditto Reef, 1s.; Orita, 6d.; Ooregum Pref., 2s. 6d.; Poorman, 6d.; St. John del Rey, 1s.; Rio Tinto, 7s. 6d.; Tolima, A, 10s.; ditto B, 5s.; West Argentine, 3d.

STOCK EXCHANGE SETTLING DAYS.

Consols, Wednesday, August 1.

STOCKS AND SHARES.

Continuation Days.	Ticket Days.	Pay Days.
Monday, August 13	Tuesday, August 14	Wednesday, Aug. 15
Tuesday, August 28	Wednesday, Aug. 29	Thursday, Aug. 30

FLUORINE has always been considered an important element in apophyllite, says the *Revue Technique*. Recent analyses show, however, that it is not. Monsieur F. C. Friedel gives the following formula for the mineral:— $4Si_2O_7 \cdot CaH_2 + KOH$.

FORTHCOMING MEETINGS.

* We shall be obliged if Secretaries or other Officials of Mining, Railway and other Companies will be good enough to advise us as early as possible of the date, time and place of their forthcoming meetings—whether statutory, semi-annual, annual, general or extraordinary, confirmatory or adjourned—in order that particulars may be announced for the benefit of our subscribers and more particularly our country readers. Balance sheets, reports and other matter to be submitted at such meetings should, where possible, accompany the intimations of the meetings sent.

Name of Company.	Date.	Nature of Meeting.	Place.	Time.
Australian Mining Company	July 30	General	Guildhall Tav.	1.0 p.m.
Harrietville Gold Mining Company	July 30	General	6 Qu'nt. p.lcs.	12.30 p.m.
New Pines Alito	July 30	General	Cannon-street	12 noon
Anglo-French Mashonaland Co.	July 30	General	Winchester Ho.	3.0 p.m.
Central Montrose Gold	July 30	General	Winchester Ho.	3.0 p.m.
Julia Tait's Mine	July 31	General	Winchester Ho.	12.30 p.m.
Burns Baby Mine	July 31	General	Cannon-street	12 noon
Imperial British E. Africa Co.	Aug. 1	General	Winchester Ho.	3.0 p.m.
Montrose Gold & Exploration	Aug. 1	General	Winchester Ho.	12 noon
New Gold Hill	Aug. 3	General	Cannon-street	12 noon
Helcomb Vau. Co. Company	Aug. 3	General	Cannon-street	1.30 p.m.

DIVIDENDS ANNOUNCED.

Australian Mining, 1s. 6d. per share.
 Alaska Treadwell Mining, 1s. 6d. per share.
 Brilliant Block, 9d. per share.
 Brilliant Central, 3d. per share.
 Broken Hill Proprietary, 1s. per share.
 De Lamar, 1s. per share.
 Phoenix Golden Pile, 1s. 6d. per share.
 Victoria Mining Association, 3d. per share.
 Aberdeen and Glasgow Steam Shipping, 1s. per share.
 Aberdeen Tramways, 5 per cent.
 Australian Joint Stock Bank, 5 per cent.
 Bank of Victoria, 5 per cent.
 Bradford Tramways, 10 per cent.
 Brewery and Commercial Investment Trust, 2 $\frac{1}{2}$ per cent.
 British Steamship Investment Pref. Stock, 3 per cent.
 Brown Bayley's Steel, 15 per cent.
 Carlisle City and District Banking, 14 per cent.
 City Bank of Sydney, 3 per cent.
 City and South London Railway, 1 per cent.
 City and South London Railway, Pref., 5 per cent.
 Commercial Banking of Sydney, 8 per cent.
 Consett Iron Company, 9s. per share.
 Consett Iron Five per Cent. Pref., 4s. per share.
 Consett Spanish Ore, 5s. per share.
 Cumberland Union Banking, 10 per cent.
 Direct United States Cable, 2s. per share.
 East and West India Docks Def. Deb. Stock 1 $\frac{1}{2}$ per cent.
 Edison Swan United "A," 6 per cent.
 Ely and St. Ives Railway Four per Cent. Stock, 4 per cent.
 Ely and St. Ives Railway Five per Cent., 5 per cent.
 Gas Light and Coke Company, 12 per cent.
 Glamorganshire Banking, 7 $\frac{1}{2}$ per cent.
 Glasgow Tram and Bus, 4s. 6d. per share.
 Globe Telegraph and Trust, 3s. 9d. per share.
 Globe Telegraph and Trust Pref., 3s. per share.
 Great Eastern Railway, 1 per cent.
 Great Northern of Ireland 6 per cent.
 Halifax Commercial Banking, 10 per cent.
 Harrison and Co. (Directory), 27 per cent.
 Hibernian Bank, 4 per cent.
 Howell and Co., 10 per cent.
 Inns of Court Hotel, 4 per cent.
 Lancashire and Yorkshire Railway, 3 $\frac{1}{4}$ per cent.
 London and Blackburn Railway, 4 $\frac{1}{2}$ per cent.
 London, Brighton, and South Coast Railway, 2 $\frac{1}{2}$ per cent.
 London, Brighton, and South Coast Railway Preference, 3 per cent.
 London, Chatham, and Dover Railway Arbitration Preference, 1 $\frac{1}{2}$ per cent.
 London and County Banking, 10 per cent.
 London Road Car, 5 per cent.
 London and St. Katherine's Docks, 2 $\frac{1}{2}$ per cent.
 London and South-Western Railway, 4 $\frac{1}{2}$ per cent.
 London Street Tramways, 4 per cent.
 Main Colliery, 5 per cent.
 Martin's Bank, 6 per cent.
 Mason and Mason, 2 per cent.
 Mason and Mason Preference, 6 per cent.
 Manganese Bronze and Brass Co., 8s. per share.
 Melbourne Tram and Bus, 6d. per share.
 Metropolitan Railway, 2 $\frac{1}{2}$ per cent.
 Metropolitan District Railway Five per Cent. Preference Stock, 3 $\frac{1}{2}$ per cent.
 Nelson Brothers, 2 $\frac{1}{2}$ per cent.
 Nelson Brothers Preference, 6 per cent.
 New Investment, 5 per cent.
 New Tamaragal Nitrate, 2 $\frac{1}{2}$ per cent.
 New Tamaragal Nitrate Mortgage Debenture, 6 per cent.
 New Tamaragal Nitrate Preference, 8 per cent.
 New Sharlston Collieries, 10s. per share.
 New Tivoli, 10 per cent.
 New Zealand Trust and Loan, 9 per cent.
 Nottingham and District Trams, 9 per cent.
 North-Eastern Railway Consols, 5 per cent.
 North London Railway, 7 $\frac{1}{2}$ per cent.
 Oakhill Somerset Brewery, 12 per cent.
 Perry and Co., 10 per cent.
 Perry and Co. Preference, 5 per cent.
 Railway Debenture Trust, 4s. per share.
 Reid and Co., 8 per cent.
 Reversion Purchase, 5 per cent.
 Rylands and Sons, 10 per cent.
 Sanitas, 10 per cent.
 Scottish Life Assurance, 6 per cent.
 Southampton Transvaal, 4 per cent.
 Threlfalls Brewery, 10 per cent.
 Threlfalls Brewery, Preference, 6 per cent.
 United States Debenture Corporation Cumulative Preference shares, 5 $\frac{1}{2}$ per cent.
 Union Bank of Australia, 6 per cent.
 Union Loan and Discount, 4 per cent.
 Union Rolling Stock, 10 per cent.
 Union Rolling Stock, bonus of 2 per cent.
 Union Rolling Stock Preference, 6 per cent.
 Welford and Sons, 6 per cent.
 Westminster Electric Supply, 4 per cent.
 Western Wagon Co., 8 per cent.

COMPANY FINANCE.

Reports, Balance Sheets, Dividends, &c., of Mining and other Companies.

Consolidated Gold Fields of South Africa.

Notice is hereby given that the directors are prepared to show issue warrants to bearer in exchange for registered certificates in warrants of 1, 2, 3, 4, 5, 10, 50, and 100 shares. The directors are also prepared to issue debentures to bearer in exchange for the 5 $\frac{1}{2}$ per cent. registered first debentures of the company. The terms upon which these exchanges are to be effected, together with forms for making the applications, can be obtained at the offices of the company.

The Harrietville Gold Mining Company.

The report of the directors to be presented at the sixth ordinary general meeting states that the value of gold sold during the year was £12,599 1s. 2d. The expenditure includes a charge of £350 for depreciation of machinery and plant, and the net result of the year's operations is a loss of £2,159 0s. 4d. This sum has been written off profit and loss account, which now shows a debit balance of £2032 18s. 4d. The grade of the ore again shows a reduction, the average being only 4 dwts. 14 grs. of gold to the ton, or, adding pyrites, a total of 5 dwts. 14 grs., as against 6 dwts. 12 grs. for the previous year. The difference is not great, but it is sufficient to account for a loss on the year's work. A considerable amount of exploratory work has been accomplished, but no important discoveries have been made. There are, however, one or two points of interest now being tested, and the appearances are encouraging. Mr. Davey is hopeful of being able shortly to report an improvement in the condition of the mine. The directors are of opinion that the Mount Saint Bernard is a valuable property, and that the purchase price is extremely moderate; they are hopeful that this

property will be found to compensate for the disappointing results hitherto obtained from the working of the original properties.

Deatona United Gold Mining Company (Limited).

Notice is hereby given that the coupons number 32 and 33, of the 10 per cent. second mortgage debentures of this company, due 1st December, 1893, and 1st June, 1894, respectively, will be paid at the office on and after the 30th day of July, 1894. The directors are prepared to issue to the debenture holders fresh sheets of coupons, with the coupon No. 33 detached, and for such purpose the debentures must be left at the office of the company.

THE QUEEN'S BIRTHDAY UNITED GOLD MINES, LIMITED.

An offer of Preference Shares.

It will be noted, on perusal of our advertisement columns, that the directors of the above-named company have decided upon offering for subscription at par 10,000 £1 Ten per Cent. Preference shares, payable 2s. 6d. per £1 share on application, 7s. 6d. per £1 share on allotment, 10s. on or before the 1st October. These shares will rank *pari passu* for all dividends with the 55,000 Preference shares already issued and allotted, and are entitled, after 10 per cent. has been paid on the ordinary shares, to 50 per cent. of all dividends actually declared by the company. Priority of application will entitle to allotment. The present capital of the company is £150,000, divided into £75,000 £1 ordinary shares, and £75,000 £1 Ten per Cent. Preference shares.

In the opinion of the directors, a few months will suffice for the necessary developments completely establishing the company's success. From advice by cable, under date the 5th instant, regular crushings have already been commenced at the mines, and the cablegram received the 9th instant shows the ore being treated will return a handsome profit. The cost of mining and milling to the company may be taken at from 3 to 4 dwt. per ton. An average yield of 1 ounce gold per ton will, it is estimated, return 30 to 40 per cent. dividends to shareholders.

The machinery and plant at present existing upon the company's properties consists of four mills, with a complement of 87 head of stamps, and is capable of treating 50,000 tons of quartz per annum.

Forms of application for the £1 Ten per Cent. Preference shares can be obtained at the company's bankers, Messrs. Brown, Janson, and Co., 32, Abchurch-lane, London, E.C., or of the secretary, at the offices of the company, 7 and 8, Great Winchester-street, London, E.C., together with copy of original prospectus, annual report and balance sheet, and map of the mines.

The directors are expecting advice of a crushing of rich stone from the Belgium reef (assay 2 ounces gold per ton), and have received advice by mail of a visit of inspection paid to the company's property in June last by the Minister and Secretary of Mines of the Colony of Victoria, who expressed themselves very gratified and impressed with the company's future prospects and the magnitude of the mines and works.

LONDON EXHIBITIONS, LIMITED.

The Chairman on the position and prospects of the company.

Mr. P. JAVAL presided on Thursday over the statutory meeting of the London Exhibitions (Limited), held at the Freemasons' Tavern.

The CHAIRMAN said that the prospectus of the company was like the Budget—liable to attack and criticism from persons who were prejudiced. They had not been free from such attacks, but if shareholders were asked to pass a vote of confidence to the directors he had no doubt they would do so. (Hear, hear.) The idea of making exhibitions at Earl's Court emanated from a discussion between Mr. Imre Kiralfy and the directors of Spiers and Pond, and the thing was thought so much of that they, as individuals, and not Spiers and Pond (Limited), were prepared to put their money into the concern. They approached some friends who were large shareholders of that firm—such gentlemen as Lord Burton, Mr. F. Gordon (of the Gordon Hotels), Sir J. B. Maple, Sir F. Seager-Hunt, and others, and such a strong response was met with that without a single written line or prospectus, or, in fact, a word of any sort, the whole capital was offered them. They, however, thought it right to give the smaller shareholders the same opportunity of subscribing as the large ones. The Chairman then replied at great length to the criticisms of a London daily paper with regard to the prospectus of the company, and referred to the agreements mentioned in the resolution before the meeting. The first agreement, he said, was with Mr. Imre Kiralfy to purchase from him his interest in all his contracts, lease from the District Railway, &c. For that they had given Mr. Kiralfy 10,000 fully-paid shares. The second agreement with Mr. Kiralfy provided that he was to act as author and managing director. That gentleman had bound himself for twenty-one years to work for nobody but the company on the Continent of Europe. First, as author, he undertook to hand over the shows and spectacles in such a manner as would enable them to ensure proper production, for they gave him 5 per cent. of the gross takings at the doors of the spectacles for reserve seats—not 5 per cent. of the takings of the Exhibition. That 5 per cent. was not all profit, because he would have to pay musicians and others a great deal out of it, and would also hand over all the plans and models for the scenery and all the sketches and dresses to be employed on the stage. Certain founders' shares was all he would get for management, and he would pledge himself not to deal with those shares in any way, and he would not be entitled to any dividend on those shares until after the shareholders had received 10 per cent. The next agreement was with Mr. Hartley, who had had a great deal to do with shows of that sort. Mr. Hartley would devote the whole of his time to the concern, for which he would get 1 per cent. in the same way as Mr. Kiralfy, but limited to £600 a year. There was also an agreement with Spiers and Pond, as refreshment contractors, under which Spiers and Pond paid the company 15 per cent. upon all their takings for refreshments. The Chairman concluded by moving:—"That the four agreements of July 6, 1894, referred to in the prospectus, be and are hereby approved and confirmed."

Mr. F. GORDON seconded the motion, which was carried unanimously, and the proceedings closed with a vote of thanks to the CHAIRMAN, who, in reply, said that the board had made arrangements to hold an exhibition in 1895 to be called the "Empire of India Exhibition."

THE GREAT BOULDER PROPRIETARY GOLD MINES (LIMITED).—The following information is taken from the *South Australian Register* of June 8th:—Great Boulder north drive 45 feet, south drive 50 feet, lode 14 feet. Great Boulder Extended open cut 680 feet, cut four lodes, two shafts 50 feet, lode 3 feet, one shaft 17 feet. Great Boulder north open cut 320 feet, cut Ivanhoe lode, two shafts 19 feet, one shaft 40 feet. Ivanhoe West open cut 400 feet, cut three lodes, shaft 12 feet. Great Boulder south open cut 250 feet, cut four lodes very rich, one shaft 11 feet, lode 3 feet, two shafts 14 feet, lode 9 feet, three shafts 10 feet, lode 2 feet. These mining leases are the property of the Great Boulder Proprietary Gold Mines (Limited).

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

ASIA MINOR.—Production to 7th July.—Lidjessy Mines. 2863 tons crude ore crushed, yielding 197 tons rich silver lead.

AUSTRALIAN BROKEN HILL CONSOLS.—The following telegram has been received from the general manager, dated Broken Hill, July 21:—"18 cwt., 345 ounces of silver. There is no improvement to report."

BAYLEY'S REWARD.—The following cable dated 24th inst. has been received from Melbourne by this company's London office:—"Week's run 700 ounces; 88 tons. Mine is looking well."

BONNIE DUNDEE.—A cablegram from the managing director, at Charters Towers, states:—"Have completed the No. 3 (new) shaft to a depth of 750 feet; generally, all is looking well."

BRILLIANT BLOCK.—Crushed during the fortnight 868 tons of quartz for 745 ounces of gold. The profit on the run is £1100. Has declared a dividend of 9d. per share, payable on Tuesday, August 7. The approximate value of this return is £2570.

BRILLIANT CENTRAL.—"280 tons for 326 ounces, with a dividend of 3d."

BRILLIANT ST. GEORGE.—Crushed 400 tons, yielding 1050 ounces of gold.

CITY AND SUBURBAN.—A cablegram from the head office, dated July 25, states:—"Township contract is concluded. Stands will be sold by public auction during the month of September."

COLOMBIAN HYDRAULIC.—The directors have received the following cablegram of the result of run No. 195:—"We have cleaned up after a run of 41 days, during which time we have washed 840 hours. The gross returns are £1900, the net profit is £1050."

DECATUR MINES SYNDICATE.—The warrants for the interest falling due this month on the 10 per cent. debentures of the Decatur Mines Syndicate (Limited), being the fourth half-yearly payment, have been posted.

EL CALLAO.—Messrs. Baring Brothers and Co. (Limited) have received the following telegram from the President of El Callao Gold Mining Company, 15th July:—"926-950 ounces of bar gold produced for the fortnight by El Callao Mine, and 1826-1850 ounces by the Colombia Mine."

ELKHORN.—Bullion produced in the mill for week ending 21st July, 8400 ounces.

EXPLORATION COMPANY.—Alaska Treadwell Gold Mining Company. Cablegram from Alaska announces the July clean up as follows:—"Shipment of bullion \$52,500, tons of ore milled 18,874, tons of sulphurets treated 344. Of bullion there came from sulphurets not stated. Estimated gross expenses for period have been \$17,000."

GOLDEN FEATHER CHANNEL.—The following was received by cable on Saturday, July 21, from Colonel Frank McLaughlin, the company's general manager at Oroville:—"Foot-dam completed last week. Commenced pumping last Monday. Claim will be drained about beginning of next week should nothing unforeseen happen. Work going ahead rapidly and well."

GOLDEN GATE.—The manager cables:—"The depth of the diamond drill bore from the surface is now 1100 feet. The rock passed through is the same hard syenitic granite."

GREAT MONKLAND.—A reef has been struck showing visible gold.

KOFFYFONTEIN.—For the four weeks ending June 16th 26,443 loads of yellow ground were hauled, and 19,943 loads washed, yielding 997½ carats, at an estimated cost of £930 12s.

JAY HAWK AND LONE PINE CONSOLIDATED.—The directors have received the following telegram from the manager:—"Estimated return, 7800 ounces. We have commenced work in the 300 west drift. Are stopping in good ore."

JOHANNESBURG PIONEER.—Output for month of June 1017 ounces of gold.

LAS CABESSES MANGANESE.—Production for the week ending July 21 (6 working days), 509 tons, or a daily average of 84 tons.

MOUNT LEYSHON.—The Mount Leyshon (Limited) have received the following cablegram, dated 24th inst., from their manager at Charters Towers, giving the fortnightly crushing:—"800 tons crushed 105 ounces gold; 25 stamps out of 40 ran 12 days; repairing engine."

MYSORE WEST AND MYSORE - WYNAAD CONSOLIDATED.—Tank block: The company's representative in India reports by telegraph, dated July 26, as follows:—"400 feet level south of the shaft have cut a body of rich ore. The quartz is 2 feet 6 inches wide. Assays average 12 ounces of gold per ton."

NEW QUEEN.—Result of crushing for past fortnight:—No. 1 formation, 245 tons, yielding 330 ounces gold, old copper plates 87 ounces. Started crushing No. 4 formation July 13.

NEW RIETfontein.—According to Mr. Hammond's instructions, battery will be closed down at an early day. Development will be continued vigorously in east and west mines.

PAHANG CORPORATION.—A cablegram has been received from the mines, giving particulars of the output for the month of June as follows:—"In 26 days of 24 hours each, 615 tons of stone were crushed, producing 40 tons 18 cwt. of black tin; 18 head of stamps running; working costs, \$9250." An official note adds that on the basis of the last sales the estimated value of the above output is \$16,250, showing a profit over working expenses of \$7000.

PHENIX GOLDEN PILE.—"Phoenix Golden Pile crushed 379 tons, yielding 1439 ounces of gold. Dividend declared, 1s. 6d. per share."

SAN SALVADOR SPANISH IRON ORE.—The *s.s. Renwick* sailed from Santander on the 23rd instant with a cargo of this company's ore for Middlebro'

SOUTH AUSTRALIAN PETROLEUM.—The latest advices from Mr. Crosbie, the manager in Burmah, state that steady progress is being made with the survey of the property, and that further maps and plans locating the wells will shortly be sent on to London. The new borings show good prospects. The rainy season is now on, and the health of the staff is good.

SPRINGDALE.—The following cable was received to-day from the mine manager:—"You may expect a very favourable report August 3. There is a great improvement in Mountain Lion Mine since last report. Shipment of high grade ores in the course of a few days."

VICTORIA AND ALTAMIRA.—The following report has been received from the mine July 1:—"Work at the mine suspended, owing to the heavy rain which still continues. It would be waste of money to attempt to put the men on, and I am very much annoyed, just at the time I expected to have some very good news to send to you."

VICTORIA GOLD MINING ASSOCIATION (Charters Towers).—A cablegram announces the declaration of a dividend of 3d. per share, payable on and after August 7th.

WEST AUSTRALIAN GOLD CONCESSIONS.—The following telegram has been received respecting the property lately acquired by this company, and which adjoins Bayley's Reward:—"Carefully examined property; area 12 acres; adjoins Bayley's Reward on north-east corner. Shaft sunk, south-west portion exposing lode 5 feet thick, with 18 inches solid stone, showing good gold. Lode underlying east making more in property, as depth attained. Large quantities alluvial were obtained, undoubtedly thrown from lodes, Bayley's Reward on side, sufficient to warrant investment of capital to further develop property, which by little work would be considerably enhanced."

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET—LONDON, JULY 27.

Copper.

THE speculative market opened quiet at £38 7s. 6d. s.c., but moderate sales sufficed to flatten it further, and £38 8s. 9d. was accepted. A recovery to £38 5s. was followed by a further decline on the continuation of sales, and £38 1s. 3d. was recorded on Tuesday, and £38 on Wednesday. Thursday's market was a shade firmer, in the face of a few buying orders, and to-day, the better feeling continuing, up to £38 6s. 3d. was paid for s.c. We close firm at £38 5s. s.c. and £38 12s. 6d. three months. The turnover has averaged about 500 tons per day. Consumers are not active buyers at present, and, generally speaking, there is little of interest or novelty to report about the market.

Tin

has been irregular. Shipments from the Straits have been very heavy, but the considerable movements in price seem to have been almost entirely due to the conflicting operations of the more prominent speculators. Cash Straits opened at £66 7s. 6d., rose to £67, and then gradually declined to £65 17s. 6d. three months ranging from 7s. 6d. to 12s. 6d. higher than spot. To-day the market was livelier than usual, and about 550 tons changed hands. We close quiet at £65 17s. 6d. to £66 s.c. and £66 10s. to £66 12s. 6d. three months. Billiton has declined from 40½ fl. to 39½ fl. Since last week in the Dutch market large transactions have taken place in Straits as well as in Billiton, and prices remain unchanged—viz., 40½ fl. spot or 40½ fl. distant. Banks, however, was still neglected, with very little doing in this brand. On Wednesday some Banks changed hands at 40½ fl.

Pig Iron.

Shipments from Scotland last week were 3600 tons, or 1221 tons less than last year, same period. In Glasgow, Scotch opened at 41s. 10½d. cash, fell to 41s. 9½d., rose to 41s. 11d., and fluctuated within these limits, closing at 41s. 10d. buyers. Hematite is quoted 43s. 7½d. a month, and Cleveland 35s. 3d. cash.

Lead

is steady, without special feature, at £9 8s. 9d. for soft foreign and £9 10s. to £9 12s. 6d. English.

Spelter

is flat on the cessation of Continental buying, and values have fallen, the close being at £15 12s. 6d. ordinaries and £15 15s. specials.

Antimony

is quiet at £32.

Quicksilver

continues dull at £6 firsts and £5 17s. 6d. seconds.

The following are to-night's (July 27) prices of metals:—

Copper.		s. d.	d.
Tough cake and ingot	...	40 12 6	41 2 6
Best selected	...	41 2 6	41 12 6
Sheets and sheathing	...	42 10 0	49 10 0
Flat bottoms	...	51 10 0	52 10 0
Chill bars	...	38 5 0	38 12 6
Good merchantable, spot, & 3 months respectively	...	38 5 0	38 12 6
Copper tubes, seamless	...	0 0 6 3/4	
Alloys.		s. d.	d.
BRASS: Wire	...	0 0 5	
" Tubes (solid drawn)	...	0 0 5 3/4	
" Sheets	...	0 0 5 3/4	
PROSPECTOR BRONZE: Alloys II.	...	75 0 0	
" " III. or V	...	75 0 0	
" " VI.	...	75 0 0	
" " VII.	...	75 0 0	
" " Vulcan brand A1	...	75 0 0	
DURO METAL	...	75 0 0	
BULL'S METAL	...	65 0 0	
Ferrobronze (Vivian's).		s. d.	d.
Ingots	...	0 0 5 3/4	
Ordinary sheets, plates, bolts and bars	...	0 0 6 3/4	
Screw bolts and nuts	...	0 0 8 3/4	
Pump rods, plain	...	0 0 1 3/4	
" Finished	...	0 0 10 3/4	
DELTA METAL: No. 4 (per ton)	...	73 10	
" Sheets and plates (per lb.)	...	0 0 10 3/4	
" Bars, round, square, flat (per lb.)	...	0 0 9 3/4	
" Hexagon (per lb.)	...	0 0 9	
Tin.		s. d.	d.
English, ingots, f.o.b.	...	69 10 0	70 0 0
" refined	...	70 10 0	71 0 0
Straits, spot and 3 months respectively	...	65 18 9	66 10 0
Australian spot, and three months respectively	...	68 5 9	70 0 0
Banks (in Holland)	...	68 5 9	68 5 0
TIN PLATES: Charcoal, best quality	...	0 16 0	0 15 6
" ordinary	...	0 14 0	0 13 6
" Coke, best quality	...	0 11 3	0 11 0
" ordinary	...	0 10 0	0 10 3
These prices of tinplates are f.o.b. at Swansea: at Liverpool 6d. per box more.			
Iron.		s. d.	d.
Pig, s.w.s., f.o.b., Clyde, spot	...	2 17 6	
" Scotch pig, No. 1 Gartsherrie	...	2 17 6	
" " Coltness	...	2 17 6	
" " Clyde	...	2 14 0	
" " Govan	...	2 3 6	
Bars, Welsh, f.o.b. Wales	...	2 2 6	
Plates	...	2 2 6	
Bars, Staffordshire, at works	...	5 3 0	
Sheets	...	6 10 0	
Plates	...	8 7 6	
Hoops	...	5 7 6	
Ship plates, Middleborough	...	4 15 0	
STEEL: English spring	...	10 0 0	
" cast	...	60 0 0	
" Rails at works, according to section	...	3 12 6	4 15 0
Lead.		s. d.	d.
Spanish or soft foreign	...	9 10 0	9 12 6
English pig, common	...	9 10 0	9 12 6
" L.B.	...	10 5 0	
" sheet and bar	...	10 15 0	
" pipe	...	11 5 0	
" red	...	12 5 0	
" white	...	15 10 0	
" patent shot	...	14 0 0	
Spelter.		s. d.	d.
Silesian ordinary brands	...	15 12 6	
" special brands	...	15 15 0	
English Swansea	...	16 5 0	
Sheet Zinc	...	18 10 0	19 0 0
Antimony.		s. d.	d.
Antimony	...	22 0 0	
Quicksilver.		s. d.	d.
Flasks, 75 lbs. warrants	...	4 0 0	5 12 6
Ore, c.i.f., U.K. ports	...	0 0 11 3/4	
1st quality, 50 per cent. and upwards	...	0 0 9 3/4	0 0 10 3/4
2nd " 47 per cent. to 50 per cent.	...	0 0 8 3/4	0 0 9 3/4
3rd " 40 " 47 per cent.	...	0 0 8	0 0 9
95-99 1/2 per cent. (guaranteed 98 per cent. min.) in ingots (1 cwt. lots)	...	0 1 10	
do do	...	0 1 9 3/4	
95-99 per cent. guaranteed	...	0 1 8 3/4	0 1 7 3/4

"THE MINING JOURNAL" SHARE LIST.

ABBREVIATIONS AND REFERENCES.—The following are the abbreviations and references which occur in the Share List:—A, Antimony; A, Arsenic; B, Bismuth; B, Borax; C, Copper; D, Diamond; G, Gold; I, Iron; L, Lead; M, Manganese; N, Nitrate; P, Phosphate; Q, Quicksilver; R, Ruby; S, Silver; S, Silver-lead; Sul, Sulphur; T, Tin; and Z, Zinc. * In the "called up" column of British Mines, signifies that the mine is conducted on "cost book" principles; † in the "Head Office" column of African Mines, signifies that the address given is not that of the head office, but of a sub- or transfer office; and ‡, following the names of African mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and Secretaries of Companies, Share dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that, while our Share List will almost invariably be found correct; we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

BRITISH MINES.

Name.	Closing Price, July 27, 1894.	Closing Price, July 20, 1894.	Par.	Latest Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Atlas	—	—	£ 1 0	—	£ 1 0 0	12,000	Devon	Camborne.
Blue Hills	2/6 7/8	7/8	—	2/- May '81	5 9/8	5,353	Cornwall	Camborne.
Botallack	—	1 1/4	—	—	51 4/8	1,880	Cornwall	St. Just.
Carn Brea	5 1/2	5 1/2	—	2/6 Dec. '93	21 12 5	6,000	Cornwall	Carn Brea.
Cook's Kitchen	3/- 5/-	5/-	—	—	35 10 10	4,900	Cornwall	Camborne.
Cumberland	—	—	1 0	5 1/2 May '88	1 0 0	51,888	Cumberland	7, Angel-court E.C.
Darwentwater, CLZ	—	—	1 0	—	1 0 0	10,050	Cumberland	Manchester.
Devon Gt. Cons. CA	22/6 27/8	27/8	5 0	3/- May '94	2 0 0	10,240	Devon	8, Finsbury-circus.
Dolcoath	63 1/2 63 1/2	65 1/2	—	12/6 Apr. '94	9 12 6	4,790	Cornwall	Camborne.
Drakewalls CTM	-3/- -6	-6	0 5	—	0 2 0	61,858	Cornwall	Dashwood House.
East Grassington L	7 7 1/2	7 1/2	—	1/6 June '94	0 9 9	8,400	Yorkshire	Palmerston-building
East Pool	—	—	2 10	—	2 7 2	12,000	Devon	20, Great St. Helen's
Gawton	—	—	4 0	5/- Apr. '92	4 0 0	15,000	Isle of Man	Douglas, Isl. of Man.
Great Laxey	1 2 1/2	1 1/2	—	-6 June '89	0 19 0	32,000	Cumberland	Newcastle.
Green Burth	—	—	1 0	2/- June '94	1 0 0	10,000	Flintshire	Chester.
Halkyn	—	—	1 0	—	1 0 0	14,834	Devon	6, Queen-street-place
Hexworthy	—	—	5 0	5/8 Sep. '93	5 0 0	14,000	Cornwall	Isle of Man
Isle of Man	2 1/2 3 1/2	3 1/2	—	3/- May '93	5 11 6	4,000	Cornwall	Truro.
Kilgildred	—	—	1 0	3/- Sep. '92	1 0 0	18,000	Cornwall	36, Finsbury-circus.
Lead Hills	12/6 17/8	17/8	6 0	2/6 July '94	11 9 6	2,500	Cornwall	36, Finsbury-circus.
Levant	—	—	—	1/3 Nov. '91	1 16 7	7,165	Wendron	1, St. Queen-st. S.W.
Lovell	—	—	5 0	5/8 Mar. '90	5 0 0	9,000	Denbighshire	Miners, N. Wales.
Miners (New)	-6 3/-	3/-	1 0	8 1/2 Feb. '91	0 18 0	48,875	Northumberland	Newcastle-on-Tyne
North & Tindale L2	—	—	1 0	—	1 0 0	25,000	Cornwall	St. Clement's Ho., E.C.
New Ballewiddin T	—	—	—	—	10 18 3	4,900	Cornwall	Camborne.
New Cooks Kite T	—	—	—	—	4 3 8	7,000	Cornwall	Redruth.
Phosnia United T	1/- 3/-	3/-	—	1/- Mar. '90	7 4 6	8,668	Cornwall	Likeard.
Polberro	15/- 20/-	20/-	—	—	0 8 3	94,287	Cornwall	37, Walbrook.
Prince of Wales T	2/- 3/-	3/-	0 10	—	0 8 3	94,287	Cornwall	6, Draper's-gardens.
So. Condurrow T	7/8 12/8	12/8	—	3/6 Apr. '93	17 7 7	6,123	Cornwall	20, Great St. Helen's
South Crofty T	1 1 1/4	1 1/4	—	—	17 2 6	6,120	Cornwall	Pool, Cornwall.
S. Frances United T	5/- 10/-	10/-	—	—	2 7 8	6,000	Cornwall	Redruth.
Tinctor	9 10 1/2	10 1/2	—	2/- Apr. '94	15 7 8	6,000	Cornwall	Carn Brea.
Weardale	7/-	7/-	9 0	1/3 Oct. '90	1 10 0	50,000	Durham	3, Lombard-court.
West France	20/- 30/-	30/-	—	2/6 May '93	15 17 1	6,144	Cornwall	Camborne.
West Killy	5 1/2 5 1/2	5 1/2	—	4/- Jan. '94	23 5 2	6,000	Cornwall	37, Walbrook.
Wheal Agar	20/- 25/-	25/-	—	10/- Apr. '88	0 12 9	10,000	Cornwall	Redruth.
Wheal Bassett	20/- 25/-	25/-	—	—	0 12 9	10,000	Cornwall	110, Cannon-st., E.C.
Wheal Friendship	-8 1/-	1/-	—	—	18 2 0	6,000	Cornwall	7, Union-court, E.C.
Wheal Grenville T	15 1/2 16 1/2	17	—	3/- July '94	4 5 6	8,590	Cornwall	Truro.
Wheal Killy	5/- 8/-	8/-	—	3/- Mar. '93	0 13 9	10,784	Cornwall	7 1/2, Gracechurch-st.
Wheal Metal & F.T.	3 1/2 3 1/2	3 1/2	—	—	—	—	—	—

EUROPEAN MINES.

Name.	Closing Price, July 27, 1894.	Closing Price, July 20, 1894.	Par.	Latest Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Alamillos	3 1/2 3 1/2	3 1/2	£ s. d.	-3 Sept. '92	2 0 0	35,000	Spain	6, Queen-street-place
Avala	0 1/2 1/2	1/2	1 0	1/- May '93	1 0 0	150,000	Servia	4, Tokenho. Bldgs.
Consett Ore	5 1/2 5 1/2	5 1/2	1 0	4 1/2 Feb. '94	1 0 0	55,200	Spain	10, Grey-st., Newcastle.
English Cr. Spelter	3 1/2 3 1/2	3 1/2	1 0	5 1/2 Dec. '92	1 0 0	84,000	Lombardy	6, Queen-street-place
Fortuna	10/- 15/-	15/-	2 0	-8 Sept. '92	2 0 0	25,000	Spain	6, Queen-street-place
Libiola	2 1/2 3 1/2	3 1/2	5 0	5/- Mar. '94	5 0 0	50,400	Italy	Dashwood Ho., E.C.
Chinacra	2 1/2 3 1/2	3 1/2	3 0	4/- May '94	3 0 0	14,988	Spain	6, Queen-street-place
Marbella	2 1/2 3 1/2	3 1/2	10 0	8/- Mar. '93	10 0 0	25,000	Spain	78, Queen Victoria-st.
Mason & Barry	2 1/2 3 1/2	3 1/2	5 0	2/- May '94	5 0 0	185,172	Portugal	67, Cannon-street
Oscar	—	—	5 0	—	0 4 6	117,240	Norway	64, Austin Priors.
Pastorena	2 1/2 3 1/2	3 1/2	3 0	—	3 0 0	67,809	Italy	6-7, Queen-street-pl.
Pontgibaud	—	—	20 0	11/5 Dec. '93	20 0 0	14,000	France	6-7, Queen-street-pl.
Rio Tinto	12 1/2 12 1/2	13 1/4	10 0	7/- May '94	10 0 0	325,000	Spain	30, St. Swithin's-lane
Do. (Mort. Bonds)	10 1/2 10 1/2	10 1/2	100 0	5 1/2 July '94	100 0 0	218,740	Spain	30, St. Swithin's-lane
Do. (2nd do.)	10 1/2 10 1/2	10 1/2	100 0	5 1/2 July '94	100 0 0	218,740	Spain	30, St. Swithin's-lane
Do. (3rd do.)	10 1/2 10 1/2	10 1/2	100 0	5 1/2 July '94	100 0 0	218,740	Spain	30, St. Swithin's-lane
Ripanj	5/- 7/-	7/-	1 0	—	0 19 0	95,000	Servia	120, Bishopsgate-st. Wn.
Tharsis	4 1/2 4 1/2	4 1/2	1 0	12 1/2 Mar. '94	2 0 0	625,000	Spain	Glasgow.
W. & Prus. Pr. Pref.	—	—	10 0	8 1/2 June '94	10 0 0	365	Germany	Walbrook Ho., E.C.
West Prussian Pr.	—	—	10 0	8 1/2 June '94	10 0 0	5,450	Germany	Walbrook Ho., E.C.
W. & Prus. Pr. Or.	—	—	10 0	8 1/2 June '94	10 0 0	14,050	Germany	Walbrook Ho., E.C.
Wohlfahrt	—	—	1 0	3 1/2 June '94	1 0 0	99,634	Prussia	17, Victoria-st., E.C.
Wohlfahrt	—	—	1 0	3 1/2 June '94	0 10 0	9,990	Prussia	17, Victoria-st., E.C.

NORTH AMERICAN MINES.

Alaska Mexican	—	—	3 1/2	—	—	100,000	Alaska	30, St. Swithin's-lane
Alaska Treadwell	3 1/2 3 1/2	3 1/2	2 1/2	1/6 July '94	2 1/2	200,000	Alaska	30, St. Swithin's-lane
Alameda and T. S.	3 1/2 3 1/2	3 1/2	1 0	-8 Mar. '91	0 8 8	351,008	Mexico	6, Queen-street-place
American Belle	2 1/2 2 1/2	2 1/2	1 0	3/- Jan. '90	1 0 0	338,890	Colorado	25, Old Broad-street
Anglo Mexican	—	—	5 0	—	1 0 0	74,850	Mexico	23, College Hill.
Arizona (Pref.) Cu	—	—	4 0	—	4 0 0	158,920	Arizona	74, Geo-st., Edinburgh
Do. 10 % Deben.	—	—	100 0	7 1/2 May '94	100 0 0	2,660	Arizona	74, Geo-st., Edinburgh
Big Creek	—	—	1 0	1/- Dec. '91	1 0 0	50,000	Nevada	2, Pancer-lane, E.C.
California	—	—	0 10	-6 May '90	0 8 9	129,571	Colorado	St. George's Ho. E.C.
Canadian Phos. T.	—	—	1 0	-6 Nov. '90	1 0 0	73,334	Canada	155, Fenchurch-st.
Chapais	—	—	1 0	—	1 0 0	21,510	Mexico	33, Broad-st. Ar. E.C.
Colorado Boy	—	—	1 0	—	1 0 0	118,491	Colorado	St. Stephens Ho. E.C.
Cortez	—	—	1 0	3 1/2 Feb. '93	1 0 0	300,000	Nevada	Suffolk House, E.C.
Decatur	—	—	1 0	—	1 0 0	32,500	Colorado	35, Queen Victoria-st.
Do. (Pref.)	—	—	1 0	—	1 0 0	12,500	Colorado	35, Queen Victoria-st.
De Lamar	18/6 19/8	19/8	1 0	1/- June '94	1 0 0	40,000	Idaho	6, Draper's-gardens.
Dickens Custer GS	-1 1/2	-1 1/2	1 0	—	0 19 9	420,500	Idaho	Winchester Ho. E.C.
Elkhorn	10/6 11/8	12/-	1 0	-9 July '94	1 0 0	175,007	Montana	6, Draper's-gardens.
Emma	-2 -4	-4	0 5	—	0 5 0	403,816	Utah	15, Geo-st. Mans. Ho.
Flagstaff	—	—	1 0	—	0 18 3	240,000	Utah	Dashwood Ho., E.C.
Gardfield	—	—	1 0	-8 Dec. '88	0 19 8	98,185	Nevada	Suffolk House, E.C.
Gen. Mining Assoc.	7 7 1/2	7 1/2	8 0	15/- Apr. '94	8 0 0	27,469	Nova Scotia	Blomfield Ho., E.C.
Golden Feather	7/- 8/-	8/-	1 0	—	1 0 0	180,000	California	8, Stephens Co. H. E.C.
Golden Gate	5/- 6/-	6/-	1 0	—	0 19 8	79,600	California	St. Stephens Co. E.C.
Golden Leaf	-8 1/-	1/-	1 0	—	1 0 0	500,259	Montana	8, Draper's Gardens.
Golden Valley	—	—	1 0	—	1 0 0	55,507	Colorado	15, Angel Court.
Hargreaves	8/- 9/-	9/-	1 0	-9 June '94	1 0 0	300,000	Arizona	6, Draper's Gardens.
Ho. Comb Valley	-4 1/2 -7 1/2	-7 1/2	0 5	—	0 5 0	540,000	California	14, Cornhill, E.C.
Idaho	1 1/2 1 1/2	1 1/2	1 0	—	0 4 8	143,439	Idaho	140, E. 1st. denhall-st.
Jackson Goldfield	—	—	5 0	—	0 5 0	408,635	California	11, Poultry, E.C.
Jay Hawk	5/6 6/8	6/8	1 0	-6 Dec. '92	1 0 0	285,000	Montana	Dashwood House.
Kohinoor "B" GS	—	—	1 0	-6 June '91	1 0 0	112,901	Colorado	Blomfield Ho., E.C.
La Plata	-3 -6	-6	1 0	1/3 Oct. '92	0 4 3	405,000	Colorado	11, Poultry, E.C.
Mammoth Gold	-3 -6	-6	1 0	40, pab. Mar. '94	1 0 0	570,000	Colorado	23, Threadneedle-st.
Meq. d'l Oro (P) G	3 1/2 3 1/2	3 1/2	5 0	—	6 0 0	10,000	Colorado	257, Winchester-st.
Meq. d'l Oro (D) G	3 1/2 3 1/2	3 1/2	5 0	—	6 0 0	10,000	Mexico	Dashwood Ho., E.C.
Montana	13/6 14/6	14/-	1 0	5 1/2 April '91	0 19 0	657,158	Montana	Dashwood Ho., E.C.
New Colorado	—	—	1 0	—	0 17 0	65,000	Colorado	Gresham House, E.C.
N. Consolidated SC	-2 -4	-4	0 5	—	0 3 6	248,578	Nevada	Abchurch Lane, E.C.
N. Gold Hill	15/- 17/-	18/6	1 0	1/- Oct. '92	0 19 9	191,045	N. Carolina	15, Angel-court, E.C.
New Goshute	—	—	2 1/2	—	0 2 8	321,616	Colorado	254, Old Broad-st.
N. Hovoe Hill	—	—	0 10	-9 Dec. '85	0 10 0	120,000	N. Carolina	Langthorne Ho., E.C.
New Vancouver	3 1/2 3 1/2	3 1/2	1 0	3 1/2 May '94	1 0 0	215,000	Brit. Columbia	12, Old Jewry Chm.
Palmarejo	-9 1/3	1/3	1 0	—	1 0 0	418,888	Colorado	4, Copthall-buildings
Pinos Altos (N) GS	5/6 6/8	6/8	1 0	-6 Mar. '90	1 0 0	180,000	Mexico	110, Cannon-street.
Pittsburg Con. (N) G	2 1/2 3 1/2	3 1/2	1 0	1/6 Mar. '93	1 0 0	77,147	Nevada	Suffolk House, E.C.
Poorman Con.	—	—	0 5	—	0 5 0	273,948	Idaho	Copthall-buildings
Red Mountain	7/- 8/-	8/-	1 0	1/6 Sep. '93	1 0 0	46,658	Colorado	11, Poultry, E.C.
Richmond	7/- 8/-	8/-	1 0	—	0 5 0	54,000	Nevada	5, Coleman-street.
Ruby Butte	7/- 8/-	8/-	2 0	-8 Apr. '94	2 0 0	122,500	California	22 St. Mary Ave.
Do. Plumas Eur. G	12/6 15/-	15/-	2 0	-9 Apr. '94	2 0 0	140,265	California	138, Leadhall-st.
Springdale	1 1/3 1 1/3	1 1/3	2 0	16 1/2 Dec. '92	2 0 0	1,000,000	Colorado	20, Abchurch Lane.
Twin Lake Placers	—	—	1 0	1/3 Mar. '94	1 0 0	24,564	Colorado	5, Lawrence P. H. E.C.
United Mexican S	1/- 1/6	1/6	1 0	2/6 May '97	1 0 0	908,654	Mexico	3, Gt. Winchester-st.

SOUTH AND CENTRAL AMERICAN MINES.

Anglo-Chilian P.N.	4 1/2 5 1/2	—	10 0	—	10 0 0	35,000	Antofagasta	123, Bishopsgate-st. W.
Do. 6 1/2 Rylst MB	92 95	—	100 0	—	100 0 0	220,000	Antofagasta	123, Bishopsgate-st. W.
Antio. (Pref.) G.S.	—	—	1 0	-6 Mar. '90	1 0 0	22,823	Colombia	184, Gresham Ho.
Antioquia (Ordin.)	—	—	1 0	—	1 0 0	42,463	Colombia	184, Gresham Ho.
Caliso Bldgs.	-9 1/3	1/-	1 0	—	1 0 0	318,348	Venezuela	50, Old Broad-street
Camaronas	—	—	2 1/2	—	0 2 4	87,000	Chili	57, Moorgate-st. E.O.
Cayalloma	-4 1/2 -7 1/2	-7 1/2	2 1/2	—	0 2 4	1,330,003	Venezuela	52, Leadenhall street
Doion	-7 1/2 -8	-8	1 0	1/- Apr. '94	1 0 0	125,000	Peru	5, Cophthal-bldgs., E.O.
Colorado Nit.	2 1/2 3 1/2	3 1/2	5 0	4 1/2 June, '94	5 0 0	32,000	Chili	12, King-st., Liverpool
Colombia	—	—	80 0	9 1/2 June '94	20 0 0	75,000	Venezuela	10, Old Broad-street
Colombian Hy.	12/6 13/6	14/-	1 0	1/- April '94	1 0 0	100,000	Colombia	10, Blomfield-street
Coripao	19/6 19/6	19/6	1 0	1/6 June '94	1 0 0	71,359	Colombia	24-5, Devonian, Ca.E.O.
Darien	—	—	1 0	—	1 0 0	133,102	Brasil	8, Bishopsgate-st. Wn.
Don Pedro	3/- 3/6	4/-	1 0	—	1 0 0	257,600	Venezuela	184, Gresham House.
El Callao	12/6 17/6	17/6	6 0	6-4-5d Feb., '94	1 0 0	128,682	Argen. & Ind	3-5, Queen-street, E.O.
Frontino & H.	20/- 22/-	22/-	1 0	1/3 June, '94	1 0 0	18,232	Argen. & Ind	10, Blomfield-street
Glenrock	1/6 2/-	2/3	1 0	—	0 18 6	100,000	Honduras	114, Union-st. E.O.
Glenrock (Pref.)	—	—	1 0	—	0 18 6	320,000	Bolivia	10, Avon. & Alma, Paris
Gravel	4/6 5/6	5/6	1 0	—	0 18 6	165,234	Paraguay	79 1/2, Gracechurch-st.
Guadalupe	5/6 5/-	5/-	1 0	—	0 18 6	30,000	Chili	70, Gracechurch-st.
Huanchaca	—	161 1/2 fr.	1 0	5/9 Oct., '93	1 0 0	22,000	Chili	Liverpool.
Isaviti	—	—	0 2	8 1/2 X '91	1 0 0	135,000	Paraguay	5, Cophthal-building.
Julian H.	—	—	0 2	—	1 0 0	130,000	Paraguay	9, Gracechurch-st.
Lautaro	4 1/2 5 1/2	5	5 0	5/- Jan., '94	5 0 0	58,000	Chili	11, Old Broad-st. E.O.
Liverpool	10 1/2 11 1/2	10 1/2	5 0	10/- Feb. '94	5 0 0	32,000	Chili	50, Lime-street, E.O.
Loma	-6 1/6	1/-	1 0	—	1 0 0	200,000	Chili	50, Lime-street, E.O.
London Nit.	1 1/2 1 1/2	1 1/2	3 0	3/4 May, '90	5 0 0	10,000	Chili	10, Blomfield-street.
London Nit. (Pref.)	2 1/2 3 1/2	3 1/2	8 0	5/- Nov., '94	5 0 0	22,000	Peru	8, Queen-street-place
Mante	1/3 1/6	2/-	0 2	—	1 0 0	300,000	Tarapaca	3, Gracechurch-st.
New Tamarugal	10 1/2 11 1/2	10 1/2	1 10	2 1/2 p.c. July '94	1 10 0	135,000	Tarapaca	13, Great St. Helens.
Do. 8 1/2 Osm Pref	10 1/2 11 1/2	10 1/2	1 10	6 p.c. July '94	1 10 0	275,000	Chili	Liverpool.
Do. 6 p.c. Dets	7 1/2	8/-	100 0	6 p.c. July '94	100 0 0	620,000	Chili	67 1/2, Old Broad-street.
Orita	1/6 2/6	3/-	1 0	1/- April '99	1 0 0	32,000	Brasil	57 1/2, Old Broad-street.
Ouro Preto	—	—	1 0	—	0 18 6	80,000	Brasil	12, King-st., Liverpool.
Pac. & Jaxampay	3 1/2 3 1/2	x.d	5 0	—	5 0 0	72,000	Tarapaca	2, Gracechurch-st.
Panulillo	—	—	2 0	1/- Nov. '89	2 0 0	112,500	Chili	23, Great St. Helens.
Primativa	3 1/2 3 1/2	3 1/2	5 0	20 1/2 Oct. '89	5 0 0	40,000	Chili	Liverpool.
Quebrada	5 1/2 6 1/2	7/8	3 0	5 1/2 Mar. '92	3 0 0	241,356	Venezuela	8, Nicholas Lane.
Rosario	6 5 1/2	5 1/2	8 0	3/8 Feb. '94	5 0 0	120,000	Chili	67 1/2, Old Broad-street.
Rosario (5 1/2 Deb.)	10 1/2 10 1/2	10 1/2	100 0	8 1/2 Apr. '94	100 0 0	275,000	Chili	57 1/2, Old Broad-street.
St. John del Rey	20/- 22/-	22/-	1 0	10 1/2 May '82	1 0 0	32,000	Brasil	12, King-st., Liverpool.
San Donato	5 1/2 6	6	5 0	10/- May '94	5 0 0	75,000	Chili	2, Gracechurch-st.
San Jorge	3 1/2 3 1/2	3 1/2	5 0	7 1/2 Apr. '94	5 0 0	32,000	Chili	2, Gracechurch-st.
San Pablo	—	—	5 0	10/- May '94	5 0 0	75,000	Brasil	Liverpool.
Santa Barbara	—	—	5 0	10/- May '94	5 0 0	75,000	Tarapaca	3, Gracechurch-st.
Santa Elena	1 1 1/2	1 1/2	5 0	5/- Nov. '83	5 0 0	22,000	Chili	Dashwood House, E.O.
Santa Rita	3 1/2 3 1/2	3 1/2	5 0	15 1/2 Apr. '94	5 0 0	20,000	Chili	Dashwood House, E.O.
San Sebastian	1 1/2 2 1/2	2 1/2	5 0	1/8 May '94	5 0 0	29,000	Colombia	5, Cophthal-buildings
Slegovia	—	—	1 0	—	0 15 0	160,000	Colombia	23, St. Swithin's Ln.
St. de Pref.	—	—	1 0	10 1/2 July '94	0 15 0	10,000	Colombia	23, St. Swithin's Ln.
St. de Pref.	—	—	1 0	8 1/2 July '94	0 15 0	10,000	Colombia	5, Cophthal-buildings
St. de Pref.	—	—	1 0	—	0 15 0	10,000	Colombia	12, Finsbury-circus.
St. de Pref.	—	—	1 0	—	0 15 0	10,000	Colombia	12, Finsbury-circus.
St. de Pref.	—	—	1 0	—	0 15 0	10,000	Venezuela	Broad-st. Avenue.
St. de Pref.	—	—	1 0	—	0 15 0	10,000	San Domingo	49, Queen Victoria-st.
St. de Pref.	—	—	1 0	—	0 15 0	10,000	Ecuador	1, Gt. Wmherbert-st.

"THE MINING JOURNAL" SHARE LIST (AFRICAN MINES).

Name.	Closing Price, July 27, 1894.	Closing Price, July 20, 1894.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.	Name.	Closing Price, July 27, 1894.	Closing Price, July 20, 1894.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Africkander.....	18/9	21/3	21/3	1/6	—	40,000	Transvaal.....	19, St. Swithin's-lane.	Mashon. Central..	—	—	1/6	—	—	200,000	Mashonaland.....	8, Old Jewry, E.O.
Agnes Block.....	9/-	11/-	11/-	1/6	—	1,000	Transvaal.....	54, Old Broad-street.	Matabeland.....	8/9	11/3	11/3	—	—	79,889	Matabeland.....	73, Basinghall St., E.O.
Appantoo.....	—	—	—	—	—	71,000	West Coast.....	9, New Broad-street.	Metropolitan (N) G	8/9	11/3	11/3	—	—	75,000	Witwatersrdt.	1, Crosby Square, J.
Aurora.....	4/-	6/-	6/-	1/6	5 1/2 Mar. '93	65,000	Witwatersrdt.	8, Old Jewry, I.	Meyer & Charl.....	5 5/8	5 5/8	5 5/8	25 1/2 June '94	1/6	71,887	Witwatersrdt.	130, Winchester Ha.
Aurora West, New G	4/-	6/-	6/-	1/6	—	80,000	Transvaal.....	1, Crosby Square, J.	Mines Trust.....	5 5/8	5 5/8	5 5/8	3 1/2 May '94	1/6	82,774	Witwatersrdt.	65, New Broad-street.
Balkis Bersteling..	1/3	1/8	1/8	0/10	—	50,000	Transvaal.....	85, Gracechurch-st.	Modderfontein..	14/6	15/8	15/8	—	—	200,000	Witwatersrdt.	65, New Broad-street.
Balkis Land.....	1/3	1/8	1/8	0/10	—	50,000	Transvaal.....	85, Gracechurch-st.	Modderfontein..	14/6	15/8	15/8	—	—	70,000	Witwatersrdt.	65, New Broad-street.
Banket.....	14/8	15/8	15/8	1/6	—	83,000	Witwatersrdt.	85, Gracechurch-st.	Modderfontein..	14/6	15/8	15/8	—	—	240,000	De Kaap.....	8, Old Jewry, I.
Bantjes Reef.....	2/6	3/-	3/-	0/10	—	207,496	De Kaap.....	17, Basinghall-street.	Mosambique.....	11/3	13/9	13/9	—	—	400,000	De Kaap.....	8, Old Jewry, I.
Barrell.....	2/6	3/-	3/-	0/10	—	200,000	Bechuanaaland Exp.	19, St. Swithin's-lane.	New Chimes.....	16/3	18/9	18/9	2/6 July '91	2/6	194,351	Bechuanaaland Exp.	34, Leadenhall-bldg.
Bechuanaaland Exp.	25/6	24/6	24/6	1/6	—	200,000	Bechuanaaland Exp.	19, St. Swithin's-lane.	New Chimes.....	16/3	18/9	18/9	2/6 July '91	2/6	194,351	Bechuanaaland Exp.	34, Leadenhall-bldg.
Black Reef (New) G	5/6	6/6	6/6	1/6	—	76,000	Witwatersrdt.	9, King William st.	New Clewer Estate	1 1/2	1 1/2	1 1/2	—	—	100,000	Witwatersrdt.	8, Old Jewry, E.O.
Block "B" Lang.	5/-	6/-	6/-	1/6	—	535,000	Witwatersrdt.	8, Princes-st. E.C.	New Crossus.....	1 1/2	1 1/2	1 1/2	5 1/2 Aug. '92	1/6	195,000	Lydenburg.....	29-30, Holborn-viaduct.
Booyen Land.....	5/-	7/-	7/-	1/6	—	95,000	Transvaal.....	4, Tokenhouse-bldg.	New Edinw. Brav	3/8	3/8	3/8	—	—	65,000	Langlaagte.....	4, Bishopsgt-st. W.
Brit. S. A. Char.....	31/-	32/-	32/-	1/6	—	2,000,000	S. Africa.....	19, St. Swithin's-lane.	New Gordon.....	3/8	4/8	4/3	5 1/2 Dec. '93	1/6	980,250	Griguland W.....	23, College Hill
Buffeladorn.....	28/-	30/-	30/-	1/6	—	250,000	Potechefstroom	8, Old Jewry.	New Jagersf.....	12 1/2	13	13 1/2	5 1/2 Mar. '94	10	100,000	Transvaal.....	110, Cannon-street.
Cape Copper.....	112 1/2	113 1/2	113 1/2	1/6	—	300,000	Cape Colony.....	9, Queen-street-place	New Louisd'Or..	4/3	4/9	4/9	—	—	100,000	Witwatersrdt.	53, New Broad-street
Do. S. Y. Pref.....	112 1/2	113 1/2	113 1/2	1/6	—	45,000	Cape Colony.....	9, Queen-street-place	New Primrose....	3 1/2	4	4 1/2	20 1/2 July '94	1/6	230,000	Witwatersrdt.	2, Drapers'-gardens.
Con. Montrose.....	1 1/2	1 1/2	1 1/2	1/6	—	116,018	Transvaal.....	16, Throgmorton Av.	New Rietfontein	4 1/2	5 1/2	5 1/2	—	—	100,000	Witwatersrdt.	24, N. John-st., E.C.
Champ d'Or.....	9/-	10/-	10/-	1/6	—	275,000	Witwatersrdt.	8, Old Jewry, E.C.	N. Ophir Concess.	—	1/3	1/3	—	—	112,801	Witwatersrdt.	1, Lombard-street.
Champ d'Or Deep G	9/-	10/-	10/-	1/6	—	275,000	Witwatersrdt.	1, Crosby Square, I.	Nigel.....	2 1/2	2 1/2	2 1/2	15 1/2 June '94	1/6	160,000	Witwatersrdt.	1, Crosby-square.
City and Suburb. G	14	14 1/2	14 1/2	1/6	—	75,000	De Kaap.....	105, Leadenhall-street	Niokongdacht E. G	—	—	—	—	—	160,000	Lydenburg.....	3, Old Jewry.
Coetzestroom.....	14	14 1/2	14 1/2	1/6	—	75,000	Griguland W.....	62, Lombard-st.	Oceana.....	1 1/2	1 1/2	1 1/2	25/- Nov. '89	1/6	150,000	Transvaal.....	4, Sun Court, E.O.
Con. Bultfontein G	28/-	27/-	27/-	1/6	—	140,000	Transvaal.....	30, St. Swithin's-lane	Oceana Developmt	1 1/2	1 1/2	1 1/2	—	—	50,000	Transvaal.....	4, Sun Court, E.O.
Con. Deep Levels G	28/-	27/-	27/-	1/6	—	140,000	S. Africa.....	8, Old Jewry.	Orange F.S.E.....	3 1/2	3 1/2	3 1/2	12 1/2 Mar. '94	1/6	284,000	Orange F. State	10, Moorgate-street.
Con. G. Fields S. A.	28/-	27/-	27/-	1/6	—	140,000	S. Africa.....	8, Old Jewry.	Orion.....	1 1/2	2/3	2/3	10 1/2 June '94	1/6	30,000	Witwatersrdt.	10, Basinghall-street
Do. S. Y. Deben.....	99 1/2	100 1/2	100 1/2	1/6	—	6,000,000	Witwatersrdt.	22, Austin Friars, I.	Otto's Kopje.....	18/-	20/-	21/-	—	—	437,888	Kimberley.....	112, Cannon-st., E.O.
Crown Reef.....	7 1/2	8 1/4	8 1/4	1/6	—	120,000	Transvaal.....	62, Lombard-street	Parli Central.....	—	—	—	—	—	138,000	Transvaal.....	28-30, Hol. Via., E.O.
De Beers Consol. G	14 1/4	14 1/2	14 1/2	1/6	—	789,791	Transvaal.....	62, Lombard-street.	Pard's Ophir.....	—	—	—	5 p.c. Apr. '94	10 p.c. Apr. '94	12,000	Twokestein.....	Capa Town.
De. S. Y. 1st Deb.....	102	103	103	1/6	—	61,875,000	Transvaal.....	62, Lombard-street.	Pard's Ophir.....	—	—	—	—	—	13,000	S. E. Africa.....	10, Moorgate-street.
Do. S. Y. Bul. Ob.	102 1/2	103 1/2	103 1/2	1/6	—	61,875,000	Transvaal.....	62, Lombard-street.	Pigg's Peak, New G	1/6	2/6	2/6	—	—	230,326	Swaziland.....	6, Queen-street-place
Durban Roadst. G	5 1/2	5 1/2	5 1/2	1/6	—	570,000	Witwatersrdt.	28, Leadenhall-bldg.	Potechefstroom G	1/6	2/6	2/6	—	—	161,000	Potechefstroom	19, Bury-st., E.O.
East Rand.....	11 1/2	12/-	12/-	1/6	—	68,000	Witwatersrdt.	170, Winchester-ho.	Princess Estate G	16/3	18/9	20/-	—	—	72,046	Witwatersrdt.	33, Cornhill, E.O.
Evelyn.....	17/6	22 1/2	22 1/2	1/6	—	148,000	Witwatersrdt.	28, Old Jewry, E.C.	Randfontein.....	14/-	15/-	15/6	—	—	1,916,500	Witwatersrdt.	59, Holborn Viaduct, I.
Exploration.....	4 1/2	4 1/2	4 1/2	1/6	—	69,350	S. Africa.....	30, St. Swithin's-lane.	Rand Mines.....	5 1/2	5 1/2	5 1/2	—	—	332,798	Witwatersrdt.	29-30, Holborn Via.
Exploring Co.....	4 1/2	4 1/2	4 1/2	1/6	—	69,350	S. Africa.....	19, St. Swithin's-lane.	Read's Drift.....	5 1/2	5 1/2	5 1/2	—	—	50,000	Transvaal.....	19, Finsbury-circus.
Ferreira.....	6 1/2	6 1/2	6 1/2	1/6	—	45,000	Witwatersrdt.	29, Holborn Viaduct.	Robinson.....	2 1/2	2 1/2	2 1/2	5 1/2 June '94	5	67,000	Witwatersrdt.	55, Holborn Viaduct, I.
Forbes Reef (New) G	3 1/2	3 1/2	3 1/2	1/6	—	105,000	Transvaal.....	45, Leadenhall-st.	Roodenig.....	6 1/2	6 1/2	6 1/2	—	—	100,000	Witwatersrdt.	30-31, St. Swithin's-lane
Goldenhuis Deep G	3 1/2	3 1/2	3 1/2	1/6	—	105,000	Transvaal.....	45, Leadenhall-st.	S. Augustine (N) D	—	—	—	—	—	234,583	Griguland W.....	30-31, St. Swithin's-lane
Goldenhuis Est. G	4 1/2	4 1/2	4 1/2	1/6	—	105,000	Witwatersrdt.	29 & 30, Hol. Viaduct	Salebury (N) D.....	2 1/2	2 1/2	2 1/2	—	—	93,000	Witwatersrdt.	1, Crosby-square, J.
Do. Main Reef.....	18/9	21/3	21/3	1/6	—	112,750	Witwatersrdt.	Warford-court, E.C.	Sheba.....	26/8	27/8	27/6	1/- July, '94	1/6	61,450	Lydenburg.....	85, Gracechurch-st.
George and May.....	18/9	21/3	21/3	1/6	—	112,750	Witwatersrdt.	Warford Court, E.C.	Silati.....	2/6	3/-	3/-	—	—	62,000	Zoutpansberg.	4, Sun Court, E.O.
George Goch.....	—	—	—	—	—	100,000	Witwatersrdt.	Johannesburg.	Simmer & Jack.....	7 1/2	7 1/2	7 1/2	10 1/2 May '94	1/6	85,000	Witwatersrdt.	33, Cornhill.
Glencalr.....	31/6	33/6	33/6	1/6	—	200,000	Witwatersrdt.	2, Drapers'-gardens.	S. A. Gold Trust.....	23/8	26/3	25/-	10 1/2 April '93	1/6	220,000	South Africa.....	8, Old Jewry.
Gold Estates T.....	3 1/2	3 1/2	3 1/2	1/6	—	100,000	Transvaal.....	46, Queen Victoria-st.	S. Simmer & Jack G	1 1/2	1 1/2	1 1/2	—	—	12,000	Witwatersrdt.	31, Lombard-st. W.
Gid. Fla. Deep.....	12 1/2	15/-	15/-	1/6	—	400,000	S. Africa.....	8, Old Jewry.	Spitskop (New) G	3/9	4/3	4/3	—	—	99,000	Lydenburg.....	15, Bishopsgt-st., E.C.
G. F. of Mashonid..	2 1/2	2 1/2	2 1/2	1/6	—	150,000	Mosambaland.....	19, St. Swithin's-lane.	Stanhope.....	4 1/2	4 1/2	4 1/2	50 1/2 May '93	1/6	220,000	Zoutpansberg.	1, Budget-row, E.O.
G. F. Tierra d' Fuego	7 1/2	8 1/4	8 1/4	1/6	—	120,000	Witwatersrdt.	14, Throgmorton Av.	Sutherland R.....	4/3	4/9	5/8	—	—	66,000	Witwatersrdt.	8, Old Jewry.
Grahamstown.....	7 1/2	8 1/4	8 1/4	1/6	—	120,000	Witwatersrdt.	14, Throgmorton Av.	Tautoni.....	—	—	—	—	—	150,000	Barberton.....	15, Angel-court, E.O.
Graskop.....	6 1/2	7	7	1/6	—	105,000	Transvaal.....	85, Gracechurch-st.	Thistle Reef.....	—	—	—	—	—	439,965	Witwatersrdt.	1, Crosby-square, J.
Griguland W.....	6 1/2	7	7	1/6	—	105,000	Transvaal.....	85, Gracechurch-st.	Trans. Coal Trust.	12/-	13/-	13/-	2 1/2 May '94	1/6	285,700	Transvaal.....	15, Angel-court, E.O.
Henry Nourse.....	6 1/2	7	7	1/6	—	105,000	De Kaap.....	Warford-court.	Trans. Est. & Dev.	8 1/2	9/6	9/6	—	—	250,000	Transvaal.....	76, Old Broad-st., E.O.
Heriot (New).....	1 1/2	2/-	2/-	1/6	—	57,404	Witwatersrdt.	1, Crosby Square, J.	Trans. Gold.....	1 1/2	1 1/2	1 1/2	1/- June '94	1/6	79,951	Transvaal.....	4, Suffolk House, E.O.
Joe's Luck.....	3 1/2	3 1/2	3 1/2	1/6	—	21,000	De Kaap.....	11, Queen Vic-st.	Trans. Land.....	5/3	5/9	5/9	—	—	169,999	Transvaal.....	4, Suffolk House, E.O.
Johannesburg Pnr	5 1/2	5 1/2	5 1/2	1/6	—	100,000	Witwatersrdt.	Johannesburg.	Trans. Land.....	1/6	2/6	2/6	—	—	38,000	Witwatersrdt.	33, Cornhill.
Jubilee.....	3 1/2	3 1/2	3 1/2	1/6	—	21,000	Witwatersrdt.	8, Old Jewry, I.	Transvaal Est.....	—	—	—	7 1/2 May '94	1/6	20,000	Witwatersrdt.	10, Cannon-street.
Jumpers.....	3 1/2	3 1/2	3 1/2	1/6	—	21,000	Witwatersrdt.	8, Old Jewry, I.	Transvaal Est.....	—	—	—	2 1/2 Jan. '94	1/6	45,000	Transvaal.....	110, Cannon-street.
Kimberley.....	5 1/2	5 1/2	5 1/2	1/6	—	100,000	Kimberley.....	29, Holborn Viaduct.	Un. Langlaag.....	13/9	16/3	16/3	—	—	100,000	Witwatersrdt.	23, St. Swithin's-lane
Kimberley Rpt.....	5 1/2	5 1/2	5 1/2	1/6	—	100,000	Kimberley.....	29, Holborn Viaduct.	Van Ryn.....	10/9	12/5	15/-	—	—	98,810	Witwatersrdt.	1, Crosby-square, J.
Kleinfontein (N) G	1 1/2	1 1/2	1/														

ton of copper and mudiic ores per fathom. In Harvey's rise in the back of the 160 fathom level east the lode is 3 feet wide composed of capel and quartz. In Bawdon's winze in bottom of 148 east the lode is yielding 3 tons copper and mudiic ores per fathom. The stopes throughout the mines are turning out large quantities of mudiic ores.

GREEN HURTH.—July 20: Annie's Vein. At the south forehead the vein has widened out, and shows a decided improvement for lead. The beds are dipping rapidly southward. The end is worth 1½ ton per fathom. The heading in the back of the above is somewhat poorer this week worth 1½ ton per fathom.—Annie's Vein North. The working continues as last reported, worth 1½ tons per fathom.—South West Branch. The vein at south forehead is producing some fine lumps of lead, worth 4½ tons per fathom.—Crossect West. The crossect west from No. 1 vein has been driven over 3 fathoms. We are still meeting with strong leads containing about 1 inch of ore. These are diverging to the south west.—W. Gray.

LEADHILLS.—W. H. Paull, July 23: Brown's Vein. The vein in the 160 fathom level, driving south of Jeffrey's, shaft has slightly improved in character, and at times contains good patches of ore. The 160 fathom level, north of Wilson's shaft, is going forward in a vein 4 feet wide, still soft and poor. In No. 2 winze sinking below the 145 there is no change worthy of remark. The 145 fathom level, north of Jeffrey's shaft, is being pushed forward in a vein 3 feet wide, strongly mixed with spar, but unproductive. In the two stopes over the 145, north of Jeffrey's shaft, the vein varies from 3 to 4 feet wide, and will produce 30 cwt. of lead ore per fathom. The vein in the 115 fathom level, driving north of Jeffrey's shaft, is 5 feet wide, composed mostly of spar and stone, spotted with lead ore. No. 1 stope over the 115, north of Jeffrey's shaft, is worth 20 cwt. of ore per fathom. In the 100 fathom level, south of Wilson's shaft, the vein is 4 feet wide, harder than of late, and carrying a good mixture of spar. No change of moment in the 100 driving south on eastern part of vein. The crossect east and west at the 100 are being continued regularly in hardish ground. The vein in No. 1 stope over the drift above the 100 is worth 100 cwt. of ore per fathom. No. 2 stope over ditto will yield 80 cwt. of ore per fathom. No. 1 stope over the 85 south of Wilson's shaft will produce 30 cwt. of ore per fathom. In the crossect east at the 70 fathom level south of Wilson's shaft we have intersected and passed through a vein 20 inches wide, composed chiefly of spar, iron pyrites, and stone. The crossect is being continued a short distance further to fully prove this point. In the several other bargains no material change has occurred. All surface works are going on regularly.

PRINCE OF WALES.—S. Roberts, J. Prowse, July 25: The ground in the crossect is somewhat easier for driving during the week, and of a highly mineralised character. The quantity of water is the same as for some time past.

ELKHORN.—Copy of Mr. C. A. Molson's monthly report for June: I beg to hand you the following report of our work for the month of June:—Mine, Ore Breaking Department. 550 feet Level, South End. A stope has been started on a 30 inch band of dry ore occurring at the breast of the drift; its value is 31 ounces.—650 feet Level South, No. 2 Stope. The vein is 2 feet wide, and the value 40 ounces. No ore was hoisted from this place during the month; it is stored in the drift until needed.—750 feet Level North, Crossect Raise Stope. The vein is 30 inches wide, and assays 35 to 40 ounces. The usual bunches of lead ore are met with lying against the sandrock.—Inside stope. The vein is 8 feet wide and the value 45 ounces. The raise which is being put up in ore has not yet connected with the 650 stope. The ore is all of the milling class.—850 feet Level North. Connection has been made here with the 750 feet north level. The height of the raise is 114 feet. The average width of the ore is 6 feet, and the value 46 ounces. At the south end of the stope some bunches of rich lead ore occur on the footwall.—950 feet Level North, South end. The vein is 3 feet wide, and the value 55 ounces.—Back stope. The raise at this place is up 118 feet above the level. The vein is 5 feet wide, and the value 42 ounces. The ore is mostly of the dry milling class.—1050 feet Level South, Back stope. Connection has been made here with the bottom of the 950 feet level diamond drill stope, showing the continuity of the ore-body. The vein is 3 feet 6 inches wide, and assays 30 ounces.—North of the shaft, outside stope. The vein at the north end is 4 feet wide, and assays 48 ounces. The ore is all of the dry class.—Inside stope. The vein is 18 inches wide, and assays 55 ounces.—1150 feet level south, south end stope. The vein is 18 inches wide, and assays 30 ounces.—1250 feet level north, raise stope. The vein is 5 feet wide and assays 50 ounces. Connection has been made here with the 1150 feet level. No ore was hoisted from this place during the month.—1350 feet level south, footwall crossect, north end. The vein is 2 feet wide, and assays 160 ounces and 18 per cent. lead.—Centre stope. The vein is 16 feet wide and assays 29 ounces.—South end stope. The vein is 8 feet wide and assays 40 ounces. The ore is dry with occasional bunches and bands of high grade smaltine ore.—1450 feet level north, raise stope, south end. The vein is 6 feet wide. The footwall portion, 2 feet in width, assays 40 ounces, the balance of the vein being low grade.—South of the shaft, back stope. The vein is 8 feet wide and assays 88 ounces and 10 per cent. lead.—Centre stope, foot of main raise. The vein is 7 feet wide, of which 4 feet is smelted ore, assaying 120 ounces and 12 per cent. lead. The balance of the vein is milling quartz, assaying 30 ounces.—South End Stope. The vein is 2 feet wide, and assays 30 ounces.—1550 feet Level South, Raise Stope. The vein is 3 feet wide, and the value 46 ounces. The ore has changed from the smelted to the milling class.—1650 Level South, Inside Raise Stope. A raise and stope has been started at a point 720 feet south of the shaft. The vein is 2 feet wide, and the value 80 ounces. The ore is dry.—Prospecting Department. 1250 feet Level North. A prospect raise has been started on a bunch of low grade quartz at a point 105 feet north of the shaft.—1350 feet Level North. The raise to connect this level with the 1250 feet level north is being put up above the 1450 feet north ore chute. The raise is in quartz, which is of too low grade to save.—1550 feet Level South. Previously reported, 643 feet 7 inches; advanced in June, 39 feet 7 inches; total length 1st July, 683 feet 4 inches. This drift was extended to prove the upward extension of the inside ore chute on the 1650 feet level south. No ore was found at the turn in the hanging wall, so the drifting was stopped. Prospecting will be continued from the 1650 feet level.—1650 feet Level South. The outside raise has holed to the 1550 feet level. Nothing of value was found here.—Amount and source of ore broken. 550 level 39 cars, 750 level 318 cars, 850 level 196 cars, 950 level 181 cars, 1050 level 171 cars, 1150 level 215 cars, 1350 level 375 cars, 1450 level 356 cars, 1550 level 48 cars, 1650 level 92 cars; total cars hoisted, 1995. Number of tons, 1305.—Milling Department. The mill ran steadily during the month. The new dust chamber is completed and working very well. A broken cam shaft caused some delay at the battery, but the pans were not affected.—Table of work performed in June. Ore on hand June 1st, 1894, 70-34 tons, raised from the mine 1905 tons, less smelting ore 184-25 tons, waste sorted out 150 tons, 334-25 tons, 970-75 tons, add for salt 152-87 tons, dry ore panned 1136-32 tons, pulp in mill 17-64 tons, rough ore in stock 40 tons; 1193-96 tons, 1193-96 tons. Table of Mill Work. Dry tons panned, 1136-32 tons. Average assay value, 4-50 ounces. Average percentage salt used, 14 per cent. Average value of tailings, 3-18 ounces. Average percentage saved, 93-01 per cent. Number of Doré bars produced, 41 bars. Number of ounces fine silver, 40,572-92 ounces. Number of ounces pure gold, 28-970 ounces. Batteries in service, 25 days 15 hours. Pans in service, 29 days. Estimated value of bullion shipped, \$24,345. Actual returns for ore shipped, 13,348-40.—\$37,693-40. Current expenses, including salaries, labour and supplies, &c., 21,672-53. Balance, being profit for June (or at \$4-85 to £ sterling, £3303, \$16,020-87.—Surface department. Everything is going along in regular order in this department. The strike on the Northern Pacific Railroad, which began here on the 27th June, prevented the shipment of smelting ore after that date, and the road is still held up at all Western points. The mine supplies are shipped to Boulder and freighted on wagons from that point. The stock of salts on hand

is sufficient to last us for about six weeks. Everything about the works is in good order.

LOMA.—The mine superintendent reports under date June 20 as follows: Operations. I am glad to say that all the breaks in the ditch have now been repaired, and we are now running steadily, and a very fair amount of gravel is being washed away. We hope to clean up at the month.—Soto Mine. The other day we made a start in this mine whilst moving monitor ahead in the other front, and we are now laying more sluice. Next month we may be able to make a run in this mine.

LIONSDALE ESTATES.—Extract from letter received from the manager, dated Lionsdale, 25th June: We are approaching very close to the point of junction of all the different leaders, which I hope to reach if our dynamite lasts out in the course of this week. On Monday last we were following a good 3 feet reef, but as was to be expected, in nearing the junction, it is to-day pinched and broken up, but I fully expect within a few feet to have a good wide solid reef giving regular results.

NEW VIRGINIA TRANSVAAL.—The manager writes under date June 23: I am very glad the Heather Bell ground has been purchased, and, as I have always said, I consider it a most valuable acquisition to the company's property. It can be worked cheaply and to good advantage, seeing our deepest levels north on a line almost with our No. 1 adit are driven past the boundary, and of ore there is vast quantities, refractory of course, but as we have the McArthur plant, in which we can get the gold apart from any fresh discoveries of a larger percentage of free milling ore. I am sure the directors have acted wisely in adding considerably to the value of the Virginia mines.

NEW GUSTON.—The following cable information has been received from the mine:—No. 12 level. 82 feet east of the shaft we have met with ore 4 feet wide. Average assay 1-10 to ½ ounce of gold per ton, 7 to 13 ounces of silver per ton, and 2 to 5 per cent. of copper. We have also struck a streak of ore 4 inches wide, assaying 2-10 ounce of gold per ton, 85 ounces of silver per ton, and 28 per cent. of copper. Impossible to cable the value of June shipments, 1550 tons, as have not yet received account sales of ore. The Mine Superintendent, under date July 5, reports, viz.:—No. 5 level: South drift, No. 1 stope. A stope has been taken off from the bottom of No. 4 level, south drift, for a height of 5 feet for 13 feet in length. Width ore, from 6 inches to 1 foot; character of ore, iron pyrites. Value, from 18 to 39 ounces silver per ton; gold, 1-4 to 4-10 ounce per ton.—No. 6 level: Midway drift. The drift having been broken through to the boundary stope, operations have been suspended here.—Midway drift: Stope. Length of stope, 25 feet; height over back of drift, 8 feet; width of ore, 2 feet; character of ore, iron pyrites. Value, from 20 to 26 ounces silver per ton; gold, 1-4 to 35-100 ounce per ton.—Midway drift: Cross drift stope. Length of stope, 38 feet; height over back of drift, 10 feet; width of ore, 10 feet; character of ore, iron pyrites and yellow copper. Value of iron pyrites, 28 to 64 ounces silver per ton; gold, 4-10 to 6-10 ounce per ton. Value of yellow copper ore, 150 to 250 ounces of silver per ton; gold, 1 to 2½ ounces per ton; copper, 8 to 13 per cent.—No. 9 Level, South Drift. The drift has been retimbered for a length of 80 feet. Owing to the ore settling so heavily on the drift timbers from the south end of the stope to the breast of the drift, a length of about 30 feet, we are obliged to remove the old timbers and replace them by wider and higher drift sets. We shall resume the driving of the drift as soon as this work is completed.—South drift, stope. Length of stope, 82 feet; height over back of level, north end of stope, 16 feet for 23 feet in length; width of ore being extracted at present, 17 feet; height of south end of stope over back of level, 12 feet for 59 feet in length; width of ore being extracted at present, 16 feet. Width of ore throughout the stope, from 16 to 23 feet. Three classes of ore are being met with, viz., (1) Peacock copper, (2) yellow copper, (3) iron pyrites. The ore occurs largely in floors, and is easily assorted. The first and second class ores are being shipped to Durango, the third class to Silverton.—Value of ore: Peacock copper, 130 to 155 ounces silver per ton; gold, 3-10 to ½ ounce per ton; copper, 30 per cent.—(2) Yellow copper: 14 to 18 ounces silver per ton; gold, 3-10 to 4-10 ounce per ton; copper, 8 to 11 per cent.—(3) Iron pyrites. 7 to 13 ounces silver per ton; gold, 2-10 to ½ ounce per ton; copper, 3 to 9 per cent.—No. 10 level, south drift, distance driven 4 feet, total distance driven from shaft cross cut 106 feet, width of ore from 18 to 20 feet. Width of ore carried in forebreast 6 feet. Value and character of ore similar to that met with in the stope at No. 1 level, south drift. South drift No. 1 stope length of stope 28 feet; height over back of level, 8 feet; width of ore, 3 feet. Character of ore, iron pyrites and yellow copper. Value, iron pyrites, 10 to 12 ounces silver per ton; gold, 1-10 to 2-10 ounce per ton; copper, 2½ to 6 per cent. Yellow copper, 14 to 18 ounces silver per ton; gold, 2-10 to 4-10 ounce per ton; copper, 6 to 11 per cent. The ore in this stope will increase in width and improve in value as the stope is continued south; the widest portion of the ore being over, and south of the winze being sunk to communicate with No. 11 level.—South Drift: Winze. Depth sunk, 11 feet; total depth of winze below base of level, 50 feet; owing to the air being bad in the winze we have been engaged erecting a blower and putting air pipes down the winze (for some days), hence the reason a greater depth has not been sunk during the past fortnight. Width of ore in bottom of winze, 2 feet. Character of ore, yellow copper and iron pyrites. Value, yellow copper, 13 to 18 ounces silver per ton; gold, 2-10 to 4-10 ounce per ton; copper, 7 to 9 per cent. Iron pyrites, 9 to 12 ounces silver per ton; gold, 1-10 to 2-10 ounce per ton; copper, 2½ to 6 per cent. The main and most valuable portion of the ore is standing on the west side of the winze, the object being to sink as much as possible in the porphyry (on the east side of the ore), for the purpose of communicating with No. 11 level as quickly as possible. North drift, cut-out stope. Length of stope, 22 feet; height, 8 feet; width of ore being carried in stoping, 12 feet; fall width of ore, 19 feet. Character of ore: (1) peacock copper, (2) yellow copper, (3) iron pyrites. Value of ore: (1) Peacock copper, 130 to 155 ounces silver per ton; gold, 3-10 to ½ ounce per ton; copper, 30 per cent. (2) Yellow copper, 15 to 23 ounces silver per ton; gold 1-4 to 4-10 ounce per ton; copper, 8 to 13 per cent. (3) Iron pyrites, 9 to 14 ounces silver per ton; gold, 2-10 to ½ ounce per ton; copper, 3 to 8 per cent. No. 11 level, north drift. Distance driven 11 feet, total distance driven from shaft crossect 26 feet. There is no ore at present in the face of drift. Having driven into a mass of porphyry which has disordered the ore at this point, I purpose running a crossect east, in order to determine if there is any ore on the east side of the drift.—South drift. Distance driven 7 feet, total distance driven from shaft crossect 25 feet; width of ore in the forebreast 5 feet. On the east side of the drift there is a streak of Peacock copper ore 4 feet wide for 6 feet in length. Character of the ore met with—(1) Peacock copper, (2) Yellow copper, (3) Iron pyrites. Value of ore: (1) Peacock copper, 130 to 155 ounces silver per ton; gold 1-4 to 3-4 ounce per ton; copper, 30 per cent. (2) Yellow copper 20 to 35 ounces silver per ton; gold 4-10 to ½ ounce per ton; copper 8 to 16 per cent. (3) Iron pyrites 9 to 13 ounces silver per ton; gold 1-10 to 3-10 ounce per ton; copper 3 to 7 per cent.—No. 12 level, shaft crossect. Distance driven 24 feet, total distance driven from shaft 55 feet.

OSCAR.—The following report has been received from the mines, dated Haguenau, July 20: Hodgkinson's lode. There is no alteration in the 500 north level. We have still the small run of quartz with us. The quartz contains a little mineral, but I have not been able to detect gold. Within the last few days there is such change in the strata accompanying the lode as to lead me to expect considerable improvement in the size and composition of the lode. In the rise from 200 north the lode just now is disturbed, so that the quartz is intermixed with the country rock. I do not anticipate that this disturbance will have any durable influence on the lode, but rather expect within the next few feet to get clear of same.

TOLIMA.—The directors have received advices by the mail of the 24th July, from their mines, of which the following is an abstract:—Frias estimated May returns (172 tons), silver valued at 2s. 9d. per ounce, £6484 6s. 8d.; cost, £3702 9s. 5d.; profit, £2781 17s. 3d. The underground agent reports 104 fathoms 4 feet 6 inches of ground

expended, of which 80 fathoms 5 feet 2 inches were productive, leaving of unproductive ground 23 fathoms 5 feet 4 inches. The superintendent, under date of June 17th, reports that the underground works continue to progress satisfactorily, but explains that, owing to the grade of the mineral having declined, the value of the (May) invoice is rather low as compared with previous invoices; but he, on the other hand, draws attention to a considerable reduction in the cost, which brings out the estimated profit for the month £281 above that cabled on the 4th June last. He also advises the completion of the works necessary to permit of the raising of the mineral by the skip road direct from the 130 fathom level—an arrangement which will greatly facilitate the operations in the deeper workings.—Underground report. The 130 fathom tip plat to date of writing is about finished, and in the course of a few days we hope to get the skiproad down to this level. 140 fathom west end was driven 13 feet by two men at \$70 per fathom, being 51-3 feet as total west of the winze. The lode has improved, and yielded 10 dwts. of mineral per fathom. 140 fathom east end was driven 26-3 feet by four men at \$80 per fathom, being 93-3 feet as total east of the winze. The lode yielded on an average 3 tons of good grade mineral per fathom, but to date it again shows a considerable decline. Just behind the forebreast a branch of mineralised stuff has gone off to the north of the main portion of the lode, and the value of this we shall endeavour to prove later on. 130 fathom west end was driven 10-4 feet by four men and a boring machine, at \$90 per fathom, being 281-2 feet as total west of the winze, and the lode yielded 10 cwt. of mineral per fathom. 130 fathom west back stope is situated from the west end of the west winze, and was stoped 32-3 feet by four men at \$27 per fathom, and yielded 5 tons of mineral per fathom. 130 fathom east end north branch was driven 7 feet by two men at \$70 per fathom, and is without change to note.—130 fathom Crossect to Engine Shaft. The roof of this has been heightened in order to give sufficient headway. 120 fathom west back stope No. 1 was stoped 28 feet by four men at \$33 per fathom, and yielded 1½ ton of mineral per fathom. 120 fathom west back stope No. 1a was stoped 57-9 feet by six men at \$23 per fathom, and yielded 3½ tons of mineral per fathom. 120 fathom west back stope No. 1b was stoped 36 feet by four men at \$26 per fathom, and yielded 3½ tons of mineral per fathom. 120 fathom west back stope No. 2 was stoped 25-2 feet by two men at \$20 per fathom, and yielded 5 cwt. of mineral per fathom. It is situated from the east end of the 110 west winze. 120 fathom west south side was stoped 9 feet on company account, and yielded 2 tons of mineral per fathom. The 120 east end north branch was driven 14-7 feet by two men at \$65 per fathom. The lode is become more defined, and of late it has been yielding some good stones of mineral. 120 fathom east back stope No. 1 was stoped 42 feet by four men at \$30 per fathom, and yielded 1½ tons of mineral per fathom. 120 fathom east back stope No. 1a was stoped 6 feet on company account and yielded 2 tons of mineral per fathom. 110 fathom east end was driven 21 feet by four men and a boring machine at \$70 per fathom, being 753-6 feet as total east of the engine shaft. The lode is letting out water freely, and has drained the 90 east winze, but otherwise there is no change to note. 110 fathom east cross branch was driven 6-5 feet by two men at \$95 per fathom, and yielded 5 cwt. of mineral per fathom. 110 fathom east back stope No. 3 was stoped 78-6 feet by four men at \$18 per fathom, and yielded 4 tons of mineral per fathom. 100 fathom east back stope No. 1 was stoped 24 feet by two men, at \$24 per fathom, and yielded 15 cwt. of mineral per fathom. 100 fathom east back stope No. 1a was stoped 48 feet by four men at \$18 per fathom, and yielded 3 tons of mineral per fathom. 90 fathom east end was driven 12-3 feet by two men at \$60 per fathom, being 882-9 feet as a total east of the engine shaft, and remains poor. 90 fathom east winze was sunk 27-6 feet by 8 men at \$120 per fathom, being 68 feet as total below the level. The first 18 feet yielded 15 cwt. of mineral per fathom; but the remaining portion was poor. 90 fathom east end Welton lode was driven 13-8 feet by two men at \$60 per fathom, and remains unchanged. 80 fathom east stope was stoped 24 feet by two men at \$25 per fathom, and yielded 15 cwt. of mineral per fathom. Shallow adit was driven 31-5 feet by four men at \$55 per fathom, being 52-5 feet as total west from the cross cut. The lode is well-defined, and the prospect somewhat improved. Crossect to new lode was driven 3-5 feet by two men at \$140 per fathom, being 385-6 feet as total length, and is unchanged.—Real de Frias. Deep adit west was driven 20 feet by two men at \$36 per fathom, being 517-15 feet as total west of the shaft. The lode remains well-defined and has been giving here and there some stones of mineralised stuff.—West Shaft. This has been drained to bottom, and to date of writing sinking has been resumed. The lode yet tends to improve, and is giving a strong branch of slightly mineralised stuff.

UNITED GOLD FIELDS OF MANICA.—Return of mining work done during the two weeks ending June 2: Adit No. 1. Distance driven 13 feet, total length 547 feet. Rock at first a little softer, but now as hard as before.—Adit No. 2. Distance driven 18 feet, total length 694 feet. Rock harder; two sets of timber fixed, other sets adjusted, and lagging put in where necessary.—Adit No. 3: Lagging put in where necessary.

WENTWORTH EXTENSION.—Report dated June 16: East cross cut is in 160 feet, progress during the week 10 feet, rock shows no change. West cross cut advanced 5 feet, total length 91 feet: rock continues very hard. Prospecting shaft No. 4 timbered to the bottom 83 feet, a station cut out and a drive started to the northward; the payable alluvial is 4 feet thick. Development work being pushed ahead vigorously.

ZAMBESIA EXPLORING.—Mr. Robert Williams, writing from Johannesburg on 30th June, reports, re George and May: I have again visited this property, and consider the yield will be increased from 8½ to 10 dwts., which is a steady improvement, as March was only 6½ dwts. The crushing for the month is somewhat reduced in consequence of the shoes and dies having become worn, but this can easily be rectified. The south reef, upon which we reported last week, is now being developed, and we expect shortly to obtain a considerable quantity of 1 ounce ore from it, which will increase the yield per ton for the whole mine.—The manager of the George and May, writing from Krugersdorp on 27th June, reports: No. 1 main shaft. The drives continue poor. The ore in both levels has become very hard, but the panning is an improvement on last week.—South reef. I have sunk 20 feet on this. It has opened out to 8 inches and pans about 25 dwts. I have cut the same leader opposite No. 1 main shaft, where the pannings are equally good. The assay value shows a result of 2 ounces 3 dwts. I have been exploring the old workings on this leader, which have been previously inaccessible on account of the water. The leader varies from 2 feet to 9 inches wide, but is of very good quality. I hope to give you some details shortly.—No. 2 main shaft. There is no change to report. I have raised 9 feet through the reef in the second level east, but have not cut through it yet. It has much the same character as the upper level, except that it is harder.—No. 2a main shaft. This has been sunk vertically 17 feet. As soon as the reef is intersected, I shall raise to the surface under the reef. After sinking 10 feet I cut through a leader about 6 inches thick, panning 20 dwts., which resembles the south reef very closely. As soon as I have sunk to 30 feet or 40 feet I shall follow this leader.—No. 3 main shaft. Stopping by contract is proceeding satisfactorily.—The winze is down 27 feet, and shows the reef about 30 inches wide, well-formed, and panning about 8 dwts. The battery continues to run well. Amount of amalgam on hand to date 1190 ounces, 50 ounces less than last month, in consequence of our having lost a day in fixing a new engine governor. None of the boxes have been cleaned out this month. The tailings maintain an improvement, but we are still much delayed in charging and discharging the vats.—Champ d'Or Deep Level. I consider there is every probability of a rise in the value of these shares, and there is every appearance of the yield per ton from this property being most satisfactory.—Inez Reef: Mr. John Joss, writing from Salisbury on June 15, reports re Inez: Mr. R. Swinburne is at the mine, and I hope next week to get his periodical statement.—Dickens. The drive east is now 91 feet, west 51 feet. We occasionally come across small pieces of quartz in both drives, but at present no main reef. I propose putting cross cuts north and south at the 100 feet, and hope we may then strike it.

ALAMILLOS.—July 18: In the 85 fathom level driving west of Taylor's engine shaft the lode has somewhat fallen off in value, and is now estimated at 1 ton per fathom. The lode in the 160 west of the same shaft is large, but is not producing any lead. The 100 west of Judd's engine shaft, valued at $\frac{1}{2}$ ton per fathom. Nothing has been done here in the past fortnight on account of the boiler being repaired. In the 100 east of the same shaft the men have also been hindered by the water. The lode in Miguel's winze, sinking below the 20 fathom level, is producing less lead and is now valued at $\frac{1}{4}$ ton per fathom.

BROKEN HILL PROPRIETARY, BLOCK 10.—The mine manager's report for the week ended June 9 states that the concentrator has worked the week less 12 hours, treating 242 tons crude ore, producing 45 tons 5 cwt. 1 qr. of concentrates, assaying 71 per cent. lead, 39 $\frac{1}{2}$ ounces silver, and 7 $\frac{1}{2}$ per cent. zinc.

BAYLEY'S REWARD CLAIM.—Mine manager's report dated June 2: Sylvester shaft, 220 feet level. South drive has been continued in a westerly direction 6 feet, total being 61 feet. The ground has been very hard with open floors and joints through the rock, from which a little water is coming, consequently we deem it advisable to continue some distance further to make sure there is nothing beyond previous to opening out on the stone passed through.—Western cross cut. This, for the purpose of cutting Gorrie's lode has been driven 16 feet of a favourable character. 160 feet level has been driven on the course of the fault mentioned as being cut in my last, a further distance of 18 feet, total 88 feet; again cutting the lode, which is fully 4 feet, and apparently continuing its proper course (about south.) The drive will now be continued in this direction until connected with the winze from the 100 feet level, in order to open up fresh or new stopes from that level down.—100 Feet Stopes. From week to week there is little or no change to report, as it continues to yield the usual quantity of rich stone and will continue.—Gordon Shaft. The rich stone in the stopes from the 50 feet level up has now been taken out. There is still a large quantity of apparently good battery stone still to be taken out in the future as it is not deemed advisable to do so at present, seeing that we have such large quantities on the surface.—Begelhole shaft. The stopes continue to yield the similar rich stone that it has hitherto done. In the north stopes we have continued about 20 feet beyond where the rich stone was previously obtained, to the point where it apparently turns for Cookshot shaft, and this morning it shows very good gold indeed. It is too soon yet to say what the development will be, but at present it looks very promising.—Everard shaft. South drive, 50 feet level, has been advanced 6 feet; total, 67 feet. The lode continues the same size, about 3 feet, and continues to yield very good gold, some portions being very rich, which is being picked out, and the remainder being stacked for the battery.—Cookshot shaft. During the week a considerable amount of timbering has been done, also sunk 3 feet; total, 58 feet. The lode is fully 6 feet wide, and still continues to yield the same rich stone it has done the last 15 or 18 feet, so that, from all appearance, a good shoot of gold, or a considerable quantity of very rich stone will eventually be opened up between this and Everard shaft. Water in Sylvester shaft has now decreased to about 2000 gallons per day, so that we shall at once prepare for the sinking of the main shaft, which will take some little time, as we intend to make alterations in the chamber at the 220 to prevent the water from the drives running in the shaft.—Battery. As telegraphed on the 29th ult. we have continued running five stampers, which is as much as we can procure water for at present, as to keep everything employed, such as feeding boilers, condensers, and the battery, takes a considerable quantity more than we have in the shaft, consequently we have to again return to the carting, and the short supply of water causes a great loss of time owing to the tailing and sluice pits having to be constantly cleaned, and the water not being good for boiler purposes, that has to be cleaned every fortnight, and although we do all we can by working Sundays as well as other days, still we find there is a considerable amount of time lost that there would not be under more favourable conditions. Week's yield has resulted in 600 ounces retorted gold.—(Signed) W. H. Mathews.

CALIFORNIA MILLING AND MINING.—The following is extracted from the manager's report from the mine for May, received July 20:—Hidden Treasure Mill. Receipts \$3946.16; expenditure \$2448.29.—California Mine. Receipts \$1263.14; expenditure \$1478.53. Average number of stamps dropping 60; customs ore milled 1416 tons; mine ore milled 229 tons; profit for 3 months ending May 2951.34. Four working days were lost owing to floods. I am finishing re-building our mill which will be completed within a month from this date. I hope by that time to secure a sufficient supply of ore again for the whole 75 stamps, and we may then consider our mill about the best in Blackhawk.—(Signed) A. L. Collins.

COLOMBIA HYDRAULIC.—T. P. Sherman, June 15: Run No. 194. We commenced washing on April 21st, and, as will be seen from the water diary, we had two stops of importance (eleven days in all). The first was owing to a break on the 30-inch pipe, and the second to a large slide on the ditch. The gravel washed was the west end of Clarke's banks, and we were favoured by slightly rising bedrock during the whole run. There was absolutely no pipe-clay to contend with, and few heavy stones. The bedrock was soft, and therefore there was comparatively little cost in driving ground cuts, which was fortunate, as, owing to the bank being but a narrow ridge, the ground cuts very long. After a run of 851 hours with the machine we cleaned up in all \$10,102, or about £2020 at a cost of about £865.

COROMANDEL.—Superintendent's report for fortnight ending June 30: Coromandel shaft. 423 feet level north driven during the fortnight 28 feet 2 inches, total from shaft 228 feet 2 inches. Lode in present end carries 6 inches of solid quartz, worth 8 dwts. per ton. The end is letting out a little water, and has a most favourable appearance.—420 feet level south. Lode still small and unproductive. The end is now 108 feet 7 inches from shaft, the drive since last report, being 10 feet 5 inches. 320 feet level north driven 17 feet, total from shaft 416 feet 7 inches. Lode 1 foot 3 inches wide of hard, compact quartz, assaying 16 dwts. 12 grains per ton.—Prospect shaft. The 500 feet crosscut east has been driven 28 feet from shaft and suspended. It has intersected the lode which is very small and poor. A rock drill has been started to drive north on its course to communicate with the 500 feet south of winze. The 500 feet cross cut west of shaft has been driven 16 feet 8 inches, and is now 21 feet 8 inches from shaft.—500 feet south of No. 1 winze. Driven for the fortnight 17 feet 7 inches, total 129 feet 4 inches. Ventilation being bad and the driving very expensive, this end has been suspended pending communication by the 500 feet north of shaft. No. 2 winze under 440 feet north sunk 14 feet 9 inches, total 54 feet 6 inches. The lode here, which has been narrowing for some time past, has now entirely cut out against a slide coming in from the south west. The ground is very heavy, and we do not think it expedient to make further search for the lode until the 500 feet level is reached.—440 feet cross cut east. This drive has been resumed with the object of cutting the Balaghat-Coromandel lode, and will be pushed on with all possible speed.

CHAMPION REEF.—Fortnightly report of Captain James Rowe, superintendent, dated July 2: Garland's shaft. This has been sunk 16 feet 9 inches, total depth 712 feet. The strata shows strong indications of our near approach to the lode. The 630 feet level north of crosscut west of shaft has been driven 28 feet 3 inches, total length 52 feet 3 inches. Lode 6 feet wide, assaying 2 ounces 2 dwts. 7 grains of gold per ton. 630 south of crosscut driven 25 feet 6 inches, total length 48 feet. Lode 2 $\frac{1}{2}$ feet wide, assaying 18 dwts. 20 grains of gold per ton. We are getting back near the dyke in this end. The 530 feet level north of west crosscut driven 26 feet, total length 519 feet 9 inches. Lode 2 $\frac{1}{2}$ feet wide, assaying 15 dwts. of gold per ton. No. 4 rise in back of level risen 15 feet 3 inches, total height 28 feet 3 inches. Lode 4 feet wide, assaying 1 ounce 8 dwts. 4 grains of gold per ton. Winze in bottom of 530 south of crosscut sunk 27 feet 6 inches, total depth 131 feet 6 inches. Lode 3 feet wide, assaying 1 ounce 16 dwts. 18 grains of gold per ton. This being deep enough for the 630 feet level the sinking is suspended. The 440 feet level north of west crosscut driven 8 feet, total length 456 feet. Lode 5 feet wide, assaying 1 ounce 8 dwts. 4 grains of gold per ton. No. 2 rise in back

of level risen 15 feet 3 inches, total height 89 feet. Lode 3 feet wide, assaying 1 ounce 14 dwts. 3 grains of gold per ton. 340 feet level south of No. 2 west crosscut at the 340 north driven 25 feet 6 inches, total length 45 feet. Lode 2 $\frac{1}{2}$ feet wide, assaying 1 ounce 19 dwts. 14 grains of gold per ton. No. 3 rise in back of 340 north of No. 1 crosscut risen 25 feet 6 inches, total height 45 feet 6 inches. Lode 3 feet wide, assaying 1 ounce 17 dwts. 5 grains of gold per ton. No. 2 or incline winze in bottom of level sunk 9 feet 9 inches, total depth 100 feet 9 inches. Lode 3 $\frac{1}{2}$ feet wide, assaying 1 ounce 18 dwts. 21 grains of gold per ton. Winze below 240 north of west crosscut sunk 16 feet, total depth 30 feet. Lode 3 feet wide, assaying 1 ounce 11 dwts. 15 grains of gold per ton.—Ribblesdale's Shaft. We have to-day resumed the sinking of this shaft below the 540 feet level. The 540 feet level north of shaft has been driven 22 feet 3 inches, total length 22 feet 3 inches. Lode 4 inches wide, assaying 1 ounce 8 dwts. 4 grains of gold per ton. 540 south driven 26 feet 9 inches, total length 26 feet 9 inches. Lode 4 inches wide, assaying 19 dwts. 10 grains of gold per ton. 440 feet level south of shaft has been driven 22 feet, total length 326 feet 6 inches. Lode small, without value. 440 feet level north winze sunk below 340 north of shaft on south part of fold has been driven on west part 19 feet 9 inches; total length from crosscut west, 39 feet 9 inches. This is communicated with incline winze in bottom of 340 north, and opened up a valuable section of ore ground. 440 south of crosscut driven 9 feet 3 inches; total length, 9 feet 3 inches. Lode 5 feet wide, assaying 1 ounce 16 dwts. 10 grains of gold per ton. 340 feet level south of shaft driven 18 feet 3 inches; total length, 675 feet 9 inches. Lode 6 inches wide, assaying 19 dwts. 15 grains of gold per ton. Rise in back of level risen 12 feet; total height, 75 feet 9 inches. Lode 9 inches wide, assaying 17 dwts. 5 grains of gold per ton. Winze below level sunk 10 feet 6 inches; total depth, 95 feet. Lode 1 foot wide, assaying 1 ounce 5 dwts. 20 grains of gold per ton. This being deep enough for the 440 feet level is suspended for a time.—Carmichael's shaft. We are pushing on with the bringing down of the incline shaft to the lode as fast as possible. The 315 crosscut west of shaft has been driven 27 feet 6 inches; total length, 376 feet 9 inches. At a distance of 350 feet from shaft we passed through a lode underlying west at an angle of 35°. The lode in back of level is 1 foot wide, and in bottom 4 inches. A sample taken from it assayed 1 ounce 3 dwts. of gold per ton. Some of the quartz shows specks of visible gold. We shall open out on this in a day or two. Rise in back of 315 north risen 7 feet 3 inches; total height, 54 feet 9 inches. Lode 3 feet wide, assaying 1 ounce 10 dwts. 13 grains of gold per ton. Winze below level sunk 4 feet 6 inches; total depth, 10 feet 3 inches. Lode 1 foot wide, assaying 1 ounce 1 dwts. 4 grains of gold per ton. In future this rise and winze will be called from 315 south of Rowe's shaft.—Rowe's Shaft. This has been sunk 10 feet; total depth below the 315 feet level, 41 feet 3 inches. Lode 2 $\frac{1}{2}$ feet wide, assaying 2 ounces 17 dwts. of gold per ton. 315 feet level north of shaft driven 20 feet 9 inches; total length, 101 feet 6 inches. Lode 1 foot wide, assaying 1 ounce 6 dwts. of gold per ton.—Stopes. The amount of ground cut for June month and value of the lode will be given in the next fortnightly report.

EAGLEHAWK CONSOLIDATED.—The following fortnightly report has been received from the mine, dated Maldon, July 9th: During the fortnight the contractors have sunk the Limited shaft a further distance of 27 feet, making the shaft 168 feet below the plat at the 826 feet level, making the shaft 994 feet from the surface. 6 feet more will make the 1000 feet. We shall have to sink about 25 feet for a well. The contractors will start to put in the timber next week, and put the dirt they break in sinking the well behind the timber. The dirt in the shaft is still hard blue stone. The tributers (Smith and party) have sent another small kiln of 15 tons to the battery this week. Harris and party have a kiln, but not crushed yet. Sampson and party in their shaft, down about 30 feet, have come on the cap of the reef. Nothing payable yet.—(Signed) Thomas Hodge.

FORTUNA.—July 18: Canada Incoosa Mine. The lode in the 150 fathom level driving west of O'Shea's engine shaft is large, and looks promising. In the 110 west of San Pedro's shaft the lode has improved, and is turning out some good ore stuff, valued at $\frac{1}{2}$ ton per fathom.—Los Salidos Mine: The lode in the 200 east of Taylor's engine shaft, estimated at 2 tons per fathom, continues strong and compact. In the 105 east of Palgrave's shaft the lode is small and unproductive. Luca's winze sinking below the 92 fathom level; this is situated east of Palgrave's shaft, and in advance of the 105 fathom level. No change of importance has occurred in the stopes since last reported. Surface works are kept on very regularly, and the machinery is in good working condition. Estimated raisings for July 250 tons. The tributers returned 83 tons of mineral in the past month.

GRAVEL GOLD.—L. Scrutton, June 20: Mine Operations. Since recommencing washing I have been working on the piece of rim gravel mentioned in my letter of June 7th. There is no change in the appearance of the gravel, which continues soft and easily worked. As soon as I have washed this out I shall break through the narrow strip that is left in front of the machine and clean up. The summer weather seems to have set in for the last three or four days, and I am in hopes that we may not be again bothered by breakages on the ditch for some time.—London Office Note. From the above it is evident that none of run No. 7, clean up of which was cabled on July 9th, was carried on on the face of the Rica bank, nor through the long sluices, and the present run, which is being carried on on the face of the Rica bank may, therefore, be expected to show a considerable improvement.

GOLD FIELDS OF MYSORE.—Fortnightly report on prospecting operations dated July 3: West Balaghat Block, No. 1 shaft. North drive at the bottom of this shaft 107 feet from surface has been driven 8 feet 9 inches, total distance from shaft 59 feet. Lode in the end 1 foot 8 inches wide, assaying 18 dwts. 5 grains of gold per ton. South drive has been driven 8 feet, total distance from shaft 71 feet. Lode in the end 2 feet 6 inches wide, assaying 17 dwts. of gold per ton.—No. 2 Shaft. This has been sunk 7 feet 3 inches, total depth from surface 137 feet 3 inches. Lode in the bottom 1 foot 3 inches wide, assaying 19 dwts. 10 grains of gold per ton. North drive 100 feet from surface has been driven 3 feet 8 inches, total distance from shaft 67 feet 3 inches. Lode in end 2 feet 3 inches wide, assaying 10 dwts. 9 grains of gold per ton. South drive has been driven 5 feet 8 inches, total distance from shaft 81 feet 8 inches. Lode in the end 1 foot wide, assaying 16 dwts. 8 grains of gold per ton.—No. 4 shaft. This has been sunk 6 feet 2 inches, total depth from surface 130 feet 2 inches. Lode in the bottom 1 foot 8 inches wide, assaying 14 dwts. 3 grains of gold per ton.—Road block. Shaft 40 feet north of No. 4 trial shaft eastern lode has been sunk 15 feet 6 inches, total depth from surface 38 feet 6 inches. Lode in the bottom 1 foot 6 inches wide, assaying 6 dwts. of gold per ton. Having met with more water in this than we could master with a windlass, we have ceased operations. Shaft No. 3 North No. 2 eastern lode. Having met with water in this, we stopped the sinking and have started to drive both north and south 53 feet from surface. North drive has been driven 11 feet, total distance from shaft 11 feet. The lode in this end is mixed, and there was no sample taken from it. South drive has been driven 21 feet 6 inches, total distance from shaft 21 feet 6 inches. Lode in the end 2 feet wide, assaying 11 dwts. 15 grains of gold per ton. Shaft 200 feet north of the above, or north shaft, has been sunk 28 feet, total depth from surface 53 feet. Lode in the bottom 1 foot 6 inches wide, assaying 8 dwts. 10 grains of gold per ton. About 300 feet east of the above, and close to the north boundary line, we have made a trench 32 feet long, 11 feet deep, and 3 feet wide. Nothing met with in it.

GOLD FIELDS OF MYSORE.—Mine report for fortnight ending July 3: Oriental Lode, South Shaft. The 470 feet level north of shaft has been driven 4 feet 6 inches, total length 96 feet. Lode 2 feet wide, assaying 1 ounce 3 dwts. 14 grains of gold per ton. 470 south driven 5 feet, total length 105 feet 6 inches. Lode 3 $\frac{1}{2}$ feet wide, assaying 1 ounce 9 dwts. 7 grains of gold per ton. The 380 feet level north has been driven 4 feet 6 inches, total length 901 feet 7 inches. Lode is disordered, split up into branches, but carrying a leader of quartz 6 inches wide, assaying 11 dwts. 15 grains of

gold per ton. 380 feet level south driven 4 feet 9 inches, total length 193 feet 6 inches. Lode 4 feet wide, assaying 14 dwts. 17 grains of gold per ton. The 280 cross cut east has been driven 4 feet 3 inches, total length 243 feet 3 inches. Nothing as yet met with.—Prospecting Work. This is being pushed ahead, and Captain Williams is sending you a report by this mail.

HOLCOMB VALLEY.—The manager reports: From 12th to 23rd June (of which three days were spent in moving the machines) treated 1017 cubic yards of gravel, yielding \$109; almost entire work in cement and old tailings, which seem to have been sluiced off the foothills the cut is skirting. Unfortunately we ran too close where the cement point is marked, and have cut off the end of a foot hill which was barren cement. He expected to see the last of this poor ground by the 29th ult. The cut west to be made has been assayed from top to bottom, and he says I fully expect this west cut will average fully 75 cents (say 3s. 1d.) to the cubic yard, and as the deeper ground is now showing very decidedly richer, I am in hopes that the succeeding cut will average \$1 a yard. There is extremely fine ground close to us, but we must work this stuff out of the way before we can get at it. Further testing of the black sand by Mr. Pedley personally shows it to be worth about \$16, say £3 6s. per ton of 2000 lbs. The tailings contain about 3 per cent. of this black sand; the ordinary gravel about 2 per cent.

KEMPINKOTE.—Superintendent's report for fortnight ending July 2: Garland's shaft. We have made the necessary alterations to the pumping engine, and have changed the 5 inch for an 8 inch drawing lift. At present, most of the water is issuing from the rock at a depth of from 150 to 170 feet, and we are boarding round the shaft so as to turn as much of it as possible into the cistern. This will be a great help to us in sinking, which will be recommenced at once. 183 east crosscut has been advanced 14 feet, making a total of 94 feet 9 inches. We have driven through a lode from 13 to 14 feet wide, running as far as can be judged at present a little to the west of north, and underlying to the west it is very nearly vertical. This large body is auriferous all through, for 7 to 8 feet on the footwall side the samples run from 8 to 15 dwts. to the ton and near the hanging from 6 to 10 dwts.—183 feet South Drive. Started on the 27th inst. at a distance of 75 feet from the shaft has been advanced 12 feet. The lode is the full size of the end, and how much larger it is impossible to say; the present value is 1 ounce to the ton. I have found several stones showing visible gold, which is very promising.—Henty's Shaft: We are cutting the cistern flat, which is almost completed. The rock is hard, and it is difficult to make rapid progress with hand labour. 173 south drive has been advanced 18 feet, making a total length of 77 feet 9 inches. The rock is hard, but its appearances are favourable, and we ought shortly to meet with the lode.

LINARES.—July 18: Pozo Ancho Mine. The 200 fathom level driving west of Peill's engine shaft turns out some lumps of ore, but not sufficient to value. The lode in the 155 west of the same shaft continues regular, but does not contain sufficient ore to value. In the 178 west of Warne's cross cut the lode chiefly consists of spar, and contains but little ore.—No. 276 winze below the 178 fathom level. This winze is going down splendidly. The lode turns out some stones of ore.—Los Quinientos Mine. Taylor's engine shaft. The 185 east has a little better appearance, but does not improve for lead. The lode in the 165 east has improved a little in the past fortnight, and is now valued at $\frac{1}{2}$ ton per fathom. In the 150 east the lode is very regular, and yields good stones of ore, but not enough to value. The 130 east continues small and without ore to value. Ginis winze sinking below the 150, worth 1 ton per fathom, has declined a little in value in the past week.—Barranco's winze below the 165. This new winze is situated in bottom of 165 fathom level, east of Taylor's engine shaft, and in advance of the 185 fathom level.

MOUNT LYELL.—The London committee have received the following report from the Melbourne board for the week ending June 7:—Engine Shaft, 100 feet Level. South drive 22 feet, face in schist rock, with small band of iron still showing. Intermediate level 75 feet. Start made to crosscut westerly towards pyrites deposit.—80 feet Level South Drive. South drive, total 134 feet, face in solid pyritous ore.—No. 1 winze. Little work has been done in this winze, men being put in No. 5 tunnel. Fresh hands engaged, and the work will now proceed without delay.—Stopes. Face northward from chamber shows a good body of ore. At the end of west crosscut from north level a winze is started, and the rich ore followed down for 7 feet. Rich ore, 15 inches to 18 inches, is still showing in the bottom, going down alongside the pyrites.—No. 2 Shaft, 100 feet Level. West crosscut driven 51 feet, little mineral showing in the rock.—No. 5 Tunnel. Two shifts driven 13 feet, total 613 feet; country slate and conglomerate, third shaft repairing.—Ore Raised. 10 tons 5 cwt. containing 10,291 ounces silver and 3 tons 8 cwt. 3 lbs. of copper.—Ore Dispatched. 13 tons, containing 7280 ounces of silver, and 2 tons 14 cwt. 2 qrs. 1 lb. of copper.

MOUNT ZEEHAN (Tasmania).—Manager reports for week ended June 12. Argent Section. Main engine shaft, No. 6 lode, intermediate level south. Stope continued, but no ore raised, as mill is engaged crushing for Zeehan-Montana Company. 72 feet level south extended 5 feet, total 163 feet. In another 20 feet expect to cut shoot met with in intermediate level. Stope in back of rise continued. Ore kept below. Lode 5 feet wide.—72 feet level north. Have started underhand stope in sole of level south of old stope. 132 feet level south extended 10 feet 6 inches, total 124 feet 6 inches. Lode about 2 feet wide. Crosscut west to No. 7 lode extended 7 feet, total 69 feet 6 inches.—No. 3 lode. No. 2 shaft, drive north extended 9 feet, total 30 feet 6 inches. Formation 5 feet wide. Lode split up by an intrusion of schist, probably owing to our nearing junction with another lode. Drive south extended 10 feet, total 20 feet 6 inches. Formation 6 feet wide, 2 feet carrying very good patches of galena. Concentrator has been run 69 hours, and crushed 237 tons of Zeehan-Montana Company's ore for 37 tons firsts, containing about 28 tons 3 cwt. lead and 3716 ounces of silver.

MYSORE WEST AND MYSORE-WYNAAD CONSOLIDATED.—The mining manager in India reports by mail under date June 30: North shaft. 350 feet level north cross cut east driven 21 feet 9 inches, total 35 feet 9 inches. No change in the nature of the ground, which is very hard and dry.—South shaft. Sinking done 6 feet, total 406 feet 6 inches. The work here has been much delayed up to the 26th instant by water. 35 feet drive north driven 17 feet 9 inches, total 219 feet 9 inches. This work has been suspended, as there was no sign of the lode. 345 feet drive cross cut west driven 10 feet, total 10 feet. This work has also been suspended as there was no sign of the lode.—354 feet drive north. Winze sunk 15 feet, total 15 feet. There is a good lode here 2 feet across, running the whole breadth of the winze. The quartz last week assayed 1 ounce 9 dwts. 6 grains, and this week has given 2 ounces 15 dwts. 6 grains. 400 feet level cross cut west driven 4 feet, total 32 feet. This work has been suspended as we have passed through the lode formation. 400 feet level drive north from cross cut west driven 36 feet 6 inches, total 36 feet 6 inches. Work here was also delayed very much by water up to the 26th instant. At least 18 hours work was lost on this account. The lode has varied from 2 $\frac{1}{2}$ feet to 4 inches of solid quartz, and is now 2 feet at the floor of the level, and 1 foot at the top of level. Last week it assayed 13 ounces 13 dwts. 6 grains on the hanging wall, and 5 ounces 10 dwts. 12 grains on the footwall. Since then the lode on the hanging wall has given out, and the lode on the footwall opened out, and now assays 1 ounce 19 dwts.—General remarks. We have about 50 tons of stuff ready to be crushed.

OREGUM.—Superintendent's report for fortnight ending July 2: Taylor's shaft sunk 7 feet, total depth 128 feet below the 460 feet level. Lode 3 feet wide, value 2 ounces 3 dwts. 13 grains. Consequent on the communication of the 560 feet level from Walroth's with this shaft we have suspended the sinking, and put the shaftmen to cut flats and to drive the 560 feet level south. The 460 feet level south. The 460 feet level south driven 31 feet, total 397 feet. Lode 5 feet 6 inches, value 2 ounces 7 dwts. 5 grains. No. 1 winze 460 feet level south sunk 6 feet 6 inches, total 39 feet 6 inches. Lode 9 inches, value 2 ounces 14 dwts. 10 grains. No. 2 winze 460 feet level south sunk 5 feet 9 inches, total 29 feet 3 inches. Lode

9 inches, value 1 ounce 12 dwts. 16 grains. The level south from No. 4 rise in back of 280 feet level south driven 15 feet 6 inches, total 38 feet 9 inches. Lode 1 foot 3 inches, value 2 ounces 1 dwt. 9 grains.—Wallroth's shaft. The 860 south driven 24 feet 6 inches, total 27 feet 6 inches. Lode 2 feet, value 9 dwts. 19 grains. The 860 feet level north driven 23 feet, total 26 feet. Lode 2 feet 6 inches, value 6 dwts. 12 grains. These two drivages are suspended whilst the shaft is being sunk and plots excavated. The 760 feet level south driven 6 feet 6 inches, total 191 feet. Lode 1 foot, value 4 dwts. 8 grains. No. 1 winze 760 feet level south sunk 7 feet, total 18 feet. Lode 1 foot 9 inches, value 10 dwts. 20 grains. No. 1 winze 760 feet level north sunk 6 feet, total 15 feet. Lode 1 foot, value 7 dwts. 14 grains. No. 1 rise 760 feet level north risen 5 feet 3 inches, total 28 feet 6 inches. Lode 1 foot 3 inches, value 9 dwts. 19 grains; communicated with No. 1 winze from 660 feet level north. The 660 feet level south driven 7 feet 3 inches, total 561 feet 3 inches. Lode 9 inches, value 5 dwts. 10 grains. No. 2 winze 660 feet level south sunk 5 feet 3 inches, total 51 feet. Lode 2 feet, value 8 dwts. 17 grains. No. 3 winze 660 feet level south, sunk 5 feet 9 inches, total 35 feet 9 inches. Lode 1 foot 6 inches, value 1 ounce 1 dwt. 19 grains. No. 4 winze, 660 feet level south, sunk 5 feet 6 inches, total 17 feet 9 inches. Lode 6 inches, value 9 dwts. 19 grains. No. 2 rise, 660 feet level south, risen 6 feet 3 inches, total 24 feet 9 inches. Lode 2 feet, value 17 dwts. 10 grains. No. 3 rise, 660 feet level south, risen 8 feet 3 inches, total 26 feet 6 inches. Lode 1 foot 4 inches, value 18 dwts. 12 grains. No. 1 winze, 660 feet level north, sunk 7 feet 6 inches, total 73 feet. Lode 1 foot 3 inches, value 1 ounce 1 dwt. 19 grains; communicated with No. 1 rise from 760 feet level north. The 560 feet level south driven 27 feet 3 inches, total 966 feet. Lode 1 foot 6 inches, value 2 ounces 5 dwts. 17 grains; communicated with Taylor's shaft. No. 2 winze, 560 feet level south, sunk 3 feet 9 inches, total 71 feet 6 inches. Lode 9 inches, value 1 ounce 2 dwts. 21 grains. No. 3 winze, 560 feet level south, sunk 1 foot 9 inches, total 56 feet. Lode 1 foot 6 inches, value 9 dwts. 19 grains. No. 4 winze 560 feet level south sunk 3 feet 6 inches, total 69 feet 3 inches. Lode 1 foot, value 12 dwts. No. 5 winze 560 feet level south sunk 6 feet 6 inches, total 79 feet 3 inches. Lode 2 feet, value 8 dwts. 17 grains. No. 6 winze 560 feet level south sunk 6 feet 6 inches, total 75 feet 3 inches. Lode 2 feet 6 inches, value 10 dwts. 20 grains. No. 7 winze 560 feet level south sunk 5 feet, total 16 feet. Lode 1 foot, value 1 ounce 3 dwts. 3 grains. No. 7 winze 460 feet level south sunk 3 feet 9 inches, total 87 feet 9 inches. Lode 2 feet 6 inches, value 1 ounce 2 dwts. 21 grains. Incline winze on point of fold in bottom of 280 feet level north sunk 5 feet 9 inches, total 31 feet. Lode 3 feet 6 inches, value 10 dwts. 21 grains. The 215 feet level north driven 13 feet 6 inches, total 432 feet 3 inches. Lode 6 inches, value 12 dwts. Low's shaft sunk 6 feet 9 inches, total depth 596 feet 10 inches. The 510 feet level south driven 13 feet 6 inches, total 133 feet 6 inches. Lode 1 foot 6 inches, value 2 ounces 10 dwts. Level south on branch from crosscut west 510 feet level driven 4 feet, total 16 feet, branch of quartz 4 inches wide, assaying 13 dwts. 2 grains. Probyn's shaft sunk 5 feet 6 inches, total 991 feet 6 inches. The 950 feet level south driven 15 feet 9 inches, total 143 feet 3 inches. Lode 6 inches, value 10 dwts. 20 grains. No. 1 winze 950 feet level north sunk 4 feet 3 inches, total depth 41 feet. Lode 6 inches, value 8 dwts. 17 grains. The 850 feet level south driven 11 feet, total 274 feet 6 inches. Lode 3 inches, value 9 dwts. 19 grains. No. 1 winze 850 feet level south sunk 6 feet 3 inches, total 58 feet. Lode 8 inches, value 12 dwts. 4 grains.—Stopes for the month. Taylor's shaft. Bottom of 360 feet level south stopped 17½ fathoms. Lode 3 feet 8 inches, value 1 ounce 8 dwts. 17 grains. Back of 360 feet level south stopped 36½ fathoms. Lode 4 feet 9 inches, value 1 ounce 9 dwts. 9 grains. Bottom of 280 feet level south stopped 26½ fathoms. Lode 5 feet 3 inches, value 1 ounce 6 dwts. 9 grains. Back of 280 feet level south stopped 5½ fathoms. Lode 2 feet, value 1 ounce 17 grains.—Wallroth's Shaft. Back of 560 feet level south stopped 10½ fathoms. Lode 2 feet 6 inches, value 2 ounces 15 dwts. 3 grains. Bottom of 560 feet level north stopped 6½ fathoms. Lode 1 foot 8 inches, value 2 ounces 14 dwts. Bottom of 460 feet level south stopped 8½ fathoms. Lode 2 feet 8 inches, value 1 ounce 18 dwts. 11 grains. Bottom of 460 feet level north stopped 11½ fathoms. Lode 1 foot 8 inches, value 2 ounces 18 grains. Bottom of 360 feet level south stopped 35 fathoms. Lode 2 feet, value 1 ounce 16 dwts. 13 grains. Back of 360 feet level south stopped 2½ fathoms. Lode 1 foot 6 inches, value 2 ounces 14 dwts. 10 grains. Bottom of 360 feet level north stopped 1½ fathoms. Lode 1 foot, value 1 ounce 6 dwts. Bottom of 280 feet level south stopped 2½ fathoms. Lode 2 feet 10 inches, value 2 ounces 4 dwts. 14 grains. Bottom of 280 feet level north stopped 4½ fathoms. Lode 1 foot 9 inches, value 3 ounces 1 dwt. 6 grains. Bottom of 215 feet level north stopped 11½ fathoms. Lode 1 foot 4 inches, value 2 ounces 3 dwts. 3 grains.—Low's shaft. Bottom of 430 feet level north, stopped 6½ fathoms. Lode 1 foot, value 3 ounces 5 dwts. 8 grains. Bottom of intermediate level north, back of 200 feet level south, stopped 4½ fathoms. Lode 1 foot, value 17 dwts. 10 grains.—Exploratory work. Wallroth's shaft. Crosscut west from 280 feet level south, towards Monday's lode, driven 22 feet 6 inches; total, 419 feet 6 inches. No discovery yet. Crosscut east from 280 feet level south, driven 5 feet 3 inches; total, 47 feet.—Probyn's shaft. Crosscut east from 450 feet level south, driven 27 feet; total, 251 feet 6 inches.—No. 2 Trial shaft. The 250 feet level south, driven 7 feet; total, 16 feet. Lode, 1 foot 9 inches, value 1 ounce 1 dwt. 19 grains. The 250 feet level north, driven 10 feet; total, 20 feet. Lode, 2 feet 9 inches, value 18 dwts. 12 grains.

ORITA.—H. J. Prender, June 21: Run No. 78. On the 15th inst. we cleaned up the branch sluice, which produced a bar worth \$1291.30. This rather poor result is caused by our having only run off top dirt, and the run being shorter than usual, as it was necessary to repair the paving of the sluice. The tunnel is now completed and we are running steadily with the increased grade. We have laid 40 feet of sluice at the head of the branch.

TASMANIA CROWN SILVER.—Manager's report dated June 14: Prospect shaft No. 1 is now 18 feet below No. 1 level. There is little or no change in the character of the ground. It consists of carbonate of iron with a little galena interspersed throughout, and forms a part of the lode formation before referred to as showing in the north end of the shaft at the No. 1 level. Drive north from prospect shaft, started from the west side of shaft and driven diagonally to intersect the lode running through shaft, has been extended a distance of 18 feet. We have just reached the hanging wall, and the face of the lode now standing in the end of the level is 5 feet wide, with well-defined foot and hanging walls, and is interspersed with galena and blende in fine grains all through. I am sending by this mail a specimen taken from the face. We intend following on the course of the lode, with the prospect of its improving. The work with the diamond drill has been going on with very little interruption. The total distance is now 117 feet 9 inches. No important change has yet developed itself. Some bands of black schist, carrying iron pyrites, have been passed through, and a considerable increase of water has been met with, amounting to 800 gallons per hour.—Geo. R. Tilly.

THISTLE REEF GOLD.—The manager reports: Mine. All the pay ore has been removed from collar of No. 1 shaft to low level dump, also from the top level dump; so we have now over 2000 tons of nice ore at the low level dump. The low level drive has been extended 37 feet, and is now 49 feet from where I started. At this point I made a rise of 22 feet to connect No. 2 winze, which was completed on the 18th inst. During the time I was making this rise I had to stop driving forward, but have now started again. The width of the reef is 6 feet, which is panning from day to day about 5 dwts. or 6 dwts.—The top level. 37 sets of good timber have been put in to enable stopping to be carried on expeditiously; also an ore pass and shoot has been erected to save handling. Pannings from the stopes show the ore to be equally as good as in the other ends.—Eastern workings. I have struck the reef in the crosscut, which pans very well; so I have started a low level drive, which should cut the reef at about 30.—Roads. The footpath has been completed down to the mill site.—Timber. I have still got a man on cutting timber, which is getting very scarce, as I mentioned in my previous letter, and it will be as well to have a lot on hand.

KAPANGA.—W. H. Argall, June 6: I beg to hand you report for four weeks ending 2nd inst. Larnach's engine shaft has been sunk by 12 men during the month 11 feet, total depth 687 feet. In sinking several quartz veins were intersected at intervals, the country between also changed for the better, becoming more like the class of sandstone met with in the shallow levels where the rich ore was encountered. At the bottom of the shaft we struck a well defined reef, bearing about north 25 west underlying to the west at angle of 70° from the horizon. It is about 3½ feet wide, carrying 3 inches of quartz against the hanging wall; under the quartz there is about 10 inches of log or clay, which is of a dark colour and looked on as a good indication for making the reef productive. The footwall portion is a fine body of quartz which is charged with iron pyrites and letting out water freely. Several samples of the ore were washed, and resulted in finding a little gold, some of the colours being quite coarse, but the majority were very fine. The reef is everything that can be desired, and seeing that it is auriferous at this depth of 687, tends to show that our predictions will, in all probability, turn out to be true, and that in depth rich ore will be found, and especially so, at or near the junction of the Scotty's and Kapanga reefs. During the month the sinking of the engine shaft was delayed through fixing new pitwork. The shaft has been timbered and divided, ladder road put in, and all ladder pillars, cage roads, &c., fixed. Below the 300 feet level on Scotty's reef a winze has been sunk 11 feet, from which we have obtained a little gold, and we are hoping this block will prove very remunerative as it is just under the No. 3 shoot of gold. No stopping has been done, as the men were employed in retimbering the main drive, &c. We have crushed 3 tons of quartz, yielding 30 ounces 16 dwts. of gold. All the machinery is working well.—Coromandel section. The men working here on tribute are doing fairly well.—On No. 4 block. Three men sunk a winze on the branch leader, and also did some driving and stopping, they have crushed 5 tons of ore and 38 lbs. of picked stone, yielding together 105 ounces 8 dwts. of retorted gold.—No. 7 block. Two men are working in this ground, but during the month have done very little development work on the reef. They have now started to drive on the new reef south from the crosscut tunnel. The footwall portion of the reef is about 9 inches in width, several veins mixed with country rock are in the hanging wall part, which taken together from wall to wall, will mean about 4 feet in width. Strong blotches of gold were seen in the quartz during the last breakdown, but no specimen stone. Altogether the reef looks very healthy, and can be valued at over 5 ounces of gold per ton of ore.—No. 15 Block. Three men have driven north and south of the crosscut 4 and 6 feet respectively on the new reef, which has averaged about 2 feet in width. In the end going north at present the reef has narrowed to 10 inches. Good gold is still being got, and also some from the bottom of the drive, which shows that it goes down. The reef in the end can be valued at 10 ounces of gold to the ton; 1½ ton and 5½ lbs. of picked stone were crushed, yielding 21 ounces 13 dwts. of melted gold. They have now in hand about 3 tons of general quartz and 14 lbs. of rich specimens. I am well pleased with this reef, and it has every appearance of being permanent, seeing that the best gold has been extracted from the floor of the drive; it looks well and there is not the least doubt in my mind that rich deposits will be encountered below sea level.

NUNDYDROOG.—July 3: Report of the work done for the month of June: Taylor's shaft sunk 12 feet, total depth 1085 feet. The lode in bottom of shaft is 2½ feet wide and assays 14 dwts. per ton. The sinking of this shaft is temporarily suspended while we drive off the 1080 levels and cut pits. 1080 south driven 3 feet, total length 3 feet. The lode is 2 feet wide and assays 15 dwts. per ton. 1080 north driven 21 feet, total length 21 feet. The lode is a fine lode 2½ feet wide and assaying 3½ ounces per ton. 1000 north driven 22½ feet, total length 512½ feet. The lode is opening out, being now 1 foot wide and assaying 8 dwts. per ton. 1000 north No. 2 crosscut east driven 44 feet, total length 44 feet, this is now stopped. 1000 north No. 1 crosscut east driven 20½ feet, total length 32½ feet, this is now stopped. 1000 south crosscut east driven 11½ feet, total length 11½ feet. This crosscut has been started near south boundary. 920 north No. 2 drive driven 70 feet, total length 220 feet. The lode is 3 feet wide and assays ½ ounce per ton. 920 north winze sunk 45 feet, total depth 45 feet. The lode is somewhat smaller than when last reported, being now 4 feet wide and assaying 1 ounce per ton. 840 north crosscut east driven 24 feet, total length 24 feet. The ground is very hard here, and there is no change. 760 north No. 1 back stoppe stopped 4 fathoms in a lode 5 feet wide assaying 15 dwts. per ton. 760 north No. 2 back stoppe stopped 22 fathoms in a lode 2 feet wide, assaying 16 dwts. 6 grains per ton. 680 north driven 13½ feet, total length 266½ feet. This drift is now suspended. 680 north crosscut east driven 24 feet, total length 24 feet. 680 north crosscut west driven 27 feet, total length 27 feet. There is no change to report in these crosscuts, and the ground continues very hard in them.—Main shaft below 760. This shaft is now completed to the 840 level. Kennedy's shaft sunk 9 feet, total depth 549 feet. We have been considerably hindered here during the past fortnight through breaking of the pump rods. 520 south driven 57½ feet, total length 100 feet. The lode is 1½ foot wide and assays 1 ounce 19 dwts. per ton. 520 north driven 40½ feet, total length 105 feet. The lode is 9 inches wide and assays 19 dwts. 12 grains per ton. 520 north rise risen 70½ feet, total height 70½ feet. The lode is 3 feet wide, assaying 2 ounces 15 dwts. 6 grains per ton. 440 north rise risen 50 feet, total height 59 feet, when we holed the 370 north bottom stoppe. The lode is 3 feet wide, assaying 15 dwts. per ton. 440 north back stoppe stopped 41 fathoms in a lode 10 feet wide, assaying 2 ounces per ton. 440 south back stoppe stopped 23½ fathoms in a lode 8 feet wide, assaying 8 dwts. 18 grains per ton. 370 north crosscut west driven 4 feet, total length 4 feet. North shaft sunk 4 feet, total depth 444 feet. The sinking of this shaft is now suspended on account of water. The drives, stoppes, &c., working by hand labour are as follows:—1000 south winze ground cut 3 feet 6 inches, assaying value 5 dwts. 12 grains. 1000 south bottom stoppe ground cut 12 feet, size of lode 6 inches, assaying value 8 dwts. 18 grains. 920 north drive ground cut 10 feet, total distance 104 feet, size of lode 6 inches, assaying value 7 dwts. 12 grains. 920 north crosscut west ground cut 5 feet, total distance 5 feet. 680 north winze ground cut 8 feet, total distance 52 feet, size of lode 6 inches, assaying value 9 dwts. 18 grains. 680 north rise and stoppe ground cut 1 foot, size of lode 1 foot, assaying value 10 dwts. 18 grains. 680 north No. 1 bottom stoppe ground cut 22 feet, size of lode 1 foot, assaying value 6 dwts. 12 grains. 680 north No. 2 bottom stoppe ground cut 27 feet, size of lode 2 feet, assaying value 12 dwts. 680 north No. 1 back stoppe ground cut 3 feet, size of lode 1 foot, assaying value 5 dwts. 12 grains. 600 north No. 2 bottom stoppe ground cut 9 feet, size of lode 1 foot 6 inches, assaying value 12 dwts. 600 north No. 3 bottom stoppe ground cut 28 feet, size of lode 1 foot 6 inches, assaying value 13 dwts. 600 north No. 4 bottom stoppe ground cut 21 feet, size of lode 1 foot 6 inches, assaying value 12 dwts. 600 north intermediate ground cut 8 feet, total distance 34 feet, size of lode 1 foot, assaying value 3 dwts. 6 grains. 600 north No. 1 back stoppe ground cut 27 feet, size of lode 9 inches, assaying value 1 ounce 6 dwts. 600 north No. 2 back stoppe ground cut 27 feet, size of lode 1 foot, assaying value 9 dwts. 18 grains. 520 north No. 1 bottom stoppe ground cut 18 feet, size of lode 1 foot, assaying value 7 dwts. 12 grains. 520 north No. 2 bottom stoppe ground cut 4 feet, size of lode 1 foot, assaying value 7 dwts. 520 north No. 3 bottom stoppe ground cut 29 feet, size of lode 9 inches, assaying value 10 dwts. 520 north No. 4 bottom stoppe ground cut 19 feet, size of lode 1 foot 6 inches, assaying value 8 dwts. 18 grains. 520 north No. 1 back stoppe ground cut 27 feet 6 inches, size of lode 1 foot 3 inches, assaying value 6 dwts. 12 grains. 370 north No. 1 back stoppe ground cut 25 feet, size of lode 1 foot 3 inches, assaying value 8 dwts. 18 grains.—Kennedy's: 95 north No. 1 bottom stoppe ground cut 23 feet 6 inches, size of lode 3 feet, assaying value 12 dwts. 95 north No. 2 bottom stoppe ground cut 16 feet 6 inches, size of lode 1 foot, assaying value 6 dwts. 12 grains. 160 north intermediate ground cut 9 feet, total distance 165 feet, size of lode 4 inches, assaying value 8 dwts. 12 grains. 160 north intermediate winze ground cut 13 feet, total distance 37 feet, size of lode 6 inches, assaying value 1 ounce 12 dwts. 12 grains. 300 south No. 1 back stoppe ground cut 30 feet,

size of lode 2 feet, assaying value 15 dwts. 300 south No. 2 back stoppe ground cut 26 feet 6 inches, size of lode 2 feet, assaying value 2 ounces 8 dwts. 12 grains. 300 north No. 2 back stoppe ground cut 22 feet, size of lode 2 feet, assaying value 2 ounces. 300 north No. 3 back stoppe ground cut 40 feet, size of lode 4 feet, assaying value 17 dwts. 6 grains. 370 north No. 1 bottom stoppe ground cut 14 feet, size of lode 6 inches, assaying value 4 dwts. 6 grains. 370 south drive ground cut 6 feet, total distance 202 feet, size of lode 2 feet, assaying value 18 dwts. 12 grains. 440 south drive ground cut 18 feet, total distance 323 feet, size of lode 2 feet 6 inches, assaying value 1 ounce 9 dwts. 6 ounces.—Mills: Both mills and tailings machinery are running well.—Health: The health of the camp generally is good; two Italians are off work.—New mill samples: Rough quartz through stonebreaker, 1 ounce 2 dwts. 18 grains; smalls, 1 ounce 10 dwts. 6 grains.—Old mill samples: Rough quartz through stonebreaker, 1 ounce 5 dwts.; smalls, 1 ounce 2 dwts. 18 grains.

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

M. R. SAMUEL JOHN DAVEY, Dealer in Cornish Mine Shares, Redruth, Cornwall, reports under date of July 26 (4 o'clock) as follows:—We have had a dull market all the week, without much change. Market is very quiet to-day. Following are quotations:—Blue Hills, ¼ to ½; Carn Brea, ¼ to ½; Cook's Kitchen, ¼ to ½; Dolcoath, 63 to 64; East Pool, 7 to 7½; Killifreth, 3 to 3½; South Condurrow, ½ to ¾; South Crofty, 1 to 1½; South Wheal Franches, ¾ to 1; Tincroft, 9½ to 10; West Franches, 1½ to 1½; West Kitty, 5½ to 5½; Wheal Agar, 1 to 1½; Wheal Basset, 1 to 1½; Wheal Grenville, 16 to 16½; Wheal Kitty (St. Agnes), ¾ to ¾; Polberro, 1½ to 1½.

Mr. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices, Liskeard, Cornwall, writes (July 26) as follows:—The mining market is exceedingly quiet, and devoid of any improving feature, prices generally are nominal with almost an absence of business. Closing prices:—Blue Hills, 4s. to 5s.; Carn Brea, 6½ to 6½; Cook's Kitchen, 4s. to 5s.; Devon Consols, 1 to 1½; Dolcoath, 62½ to 63; Drakewalls, 3d. to 6d.; East Pool, 7½ to 7½; Killifreth, 2½ to 2½; Levant, 5 to 5½; Phoenix United, 5s. to 6s. 6d.; Polberro, 1 to 1½; South Crofty, 1 to 1½; South Franches, ¾ to ¾; Tincroft, 9½ to 10; West Franches, 1½ to 1½; West Kitty, 5½ to 5½; Wheal Agar, 1 to 1½; Wheal Basset, 1½ to 1½, o.p.; Wheal Grenville, 16 to 16½, x.d.; Wheal Kitty, 6s. to 7s. 6d.

Messrs. ABBOTT AND WICKETT, Stock and Share Brokers, and Mining Share Dealers, Redruth, write under date of Thursday July 26:—There has been no feature of note in the Cornish Share Market during the past week, and prices do not show much change. Business has been limited, and chiefly confined to Dolcoath, Tincroft, and Killifreth. Quotations herewith (four o'clock):—Blue Hills, ¼ to ½; Carn Brea, ¼ to ½; Cook's Kitchen, ¼ to ½; Dolcoath, 63 to 64; East Pool, 7 to 7½; Killifreth, 2½ to 2½; Polberro, 1½ to 1½; South Condurrow, ½ to ¾; South Crofty, 1½ to 1½; South Franches, ¾ to ¾; Tincroft, 9½ to 10½; West Franches, 1½ to 1½; West Kitty, 5½ to 5½; Wheal Agar, 1 to 1½; Wheal Basset, 1½ to 1½; Wheal Grenville, 16 to 16½; Wheal Kitty, 6s. 6d. to 7s. 6d. Tin, £66.

MANCHESTER.

Messrs. JOSEPH R. and W. P. BAINES, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write, July 26, 1894 (noon):—With but a poor total of business passing during the week, there are some more or less distinct changes in prices to record. In home rails these changes are contradictory, but numerically the balance is on the downward side, whilst in Americans lower prices are the rule, without (amongst the generally active stocks) any exceptions. There have been at times some fluctuations, we may best report the daily changes with above remarks as a summary thereof. On Friday last home rails showed better generally, with Chathams and "Macs" to the front, a fair business being done in Chathams and British New Ordinary at improving figures. Other business was made up in nearly all cases of solitary markings, Americans beginning lower on ease from the other side, did not recover all day, and very few transactions were reported. Not a mark in Canadians or in Mexican rails. Saturday quiet, as usual. Home rails unchanged! In Americans, Atchisons showed weakness, but there were no other changes of importance in this market. Canadians were irregular, Pacifics being put up \$1, whilst Trunk issues were rather easier. Mexicans quite neglected. Monday brought the dividend announcement on Lancashire and Yorkshire Railway, and though this was ½ per cent. better than last year, with about the same amount forward, it did not move the market as might have been expected; on the contrary, Home Rails as a rule were a little easier. In Americans, Atchisons fell away sharply, and this gave the one to the market, lower prices throughout the list being marked. Mexicans and Canadians again not marked for business. Tuesday exhibited weakness all along the line, perhaps owing to the occurrence of the settlement. In Home Rails, Lancashire and Yorkshire and Great Eastern showed a little improvement, but otherwise lower prices have prevailed, Metropolitan District and Sheffield deferred being to the fore therein. Americans began lower, reflected from New York, but only Union Pacifics came in for special drubbing, and though they all finished lower on the day a part of the fall during the day was recovered on some instances near the close. A solitary mark in Grand Trunk Ordinary comprised all done in Canadians, and Mexicans were without business, nor were prices herein affected to any extent by the traffic announced. Yesterday home rails moved peculiarly, those that advanced yesterday declining, and the declines of yesterday to-day showing better. It was only in quotations, however, as there were hardly any dealings accorded herein. In Americans, Union Pacifics were done a few times, but there was very little indeed going on; still the tone was a trifle firmer generally. The Canadian market, as well as that for Mexicans, quite neglected. Traffic announcements brought out nothing which had any effect on prices or business. The opening this morning is a little irregular on Home Rails, changes from last night being here and there ¼ or so different to last night's close. Americans begin lower than last evening. Canadians and Mexicans open same as last night. Business outside the Railway markets has been restricted also, but prices where changed, show changes in nearly all, if not all, departments with advances in majority. Consols are the turn (1-16 to 3-16) lower on the week. In Colonials advances of ½ each in Canada Registered and Queen Land Inscribed are the only changes marked here. Home Corporation Stocks, &c., are unaltered save for Manchester issues, the Three per Cent. (red. 1941) being ½ up, and the Three per Cent. (red. 1928) ½ down. Foreigners are better in the great majority of instances, Argentines alone showing decline, viz. Six per Cent. ¾, and Five per Cent. ¾ to ½, whilst the following are higher:—Italian Rentes 1½; Brazilian Four and a-Half per Cent. 1; ditto Four per Cent. 1; Egyptian Unified, ½; Spanish Four per Cent. ¾; Mexican Six per Cent. ¾; Portuguese Three per Cent. ¾; Uruguay Three and a-Half per Cent. ¾.

BANKS.—Several transactions are recorded in Districts and a few in Consolidated; otherwise little doing. Prices, however, where moved are mostly upwards. Mercantile of Lancashire being the only declines (1-16 to ¼), whilst Bank of Liverpool is ½ to ¾; Imperial Ottoman, ¼; Imperial of Persia, ¼; Manchester and County, ¼; Parr's, ¼; and London and Midland, ¼.

INSURANCE.—Rather more doing than of late. Higher: Lancashire, ¾; Commercial Union, ¾; Royal, ¾; Manchester Fire, Maritime and Sea 1-16 each; and Equitable Fire, 1s. Lower: British and Foreign Marine, ¾; Union Marine, 1-16 to 3-16; and Palatine, 1-16.

COAL, IRON, &c.—Hardly anything doing. Higher: Bolckow Preference, ¾; ditto Ordinary fully paid, ¾; Patent Nat and Bolt, ¾;

Sheepbridge A, 1; and Tredegar A, 1. Lower: Ebbw Vale, 1-10.

COTTON SPINNING, &c.—Market lifeless, and prices almost untested, but lower where altered at all.

MINES.—A few solitary markings in Tintos and Consolidated Gold Fields all done here. Consolidated Gold Fields are 1-16 better. Tintos are 7-16, Mysore 1-16 to 3-16, and Cape Copper 1-16 lower.

TELEGRAPHS AND TELEPHONES.—Without business, save in National Telephone Ordinary, there are the following variations in quotations:—Higher: Direct United States, 1; Eastern Telegraph, 1; and Eastern Extension, 1; National Telephone Ordinary 1-16 to 1; and Consolidated Telephone, 1-16.

BREWRIES.—Allsops have fluctuated wildly, and are 3 down on balance. Manchester Brewery are 1/2 down. Higher: Springwell Ordinary, 1/2; ditto Preference, 1/2; and Tamplins, 1/2.

MISCELLANEOUS.—Canals very quiet, the ordinary are 1-16 better, whilst pref. show decline of 1-16 to 1/2. Blackpool Pier 2 to 3, Brunner Mond 1 1/2, Hudsons Bay 1/2, Suez Canal 2, Gas Light and Coke A 1 to 3, Chartered S. A. 2, Coats 1/2, Salt Union ordinary 3-16, and United Alkali ordinary 3-16 higher. Lower—Chadwick's ordinary 1/2, Eastmans 1/2, Liverpool and Plate Glass 1/2, Fowler Bros. 1-16, and Seddons Tyres 1.

LATER (4.0 p.m.)—Notwithstanding that the Metropolitan District dividend announcement gives 1 per cent. more on the preference, it had no effect on the market for their ordinary stock. The only changes in Home Rails are advances in Great Eastern of about 1 per cent., and North Easterns 1/2. Americans a little lower, but small in amount save for Milwaukee, which are about \$1 down, Canadians and Mexicans still neglected. Ship Canals, nothing of moment doing, and prices unaltered.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, Stockbroker and Ironbroker (July 26), writes:—During the past week the markets have continued quiet, owing partly to the holidays and to the intervening fortnightly settlement. The rates of continuation to the new account have been very light, notwithstanding it is a 19 days settlement. The miners' strike is still unsettled, and is affecting trade generally.

In shares of coal, iron, and steel companies, business has been quiet. The dividend on Cowdenheath Coal Company Ordinary shares is announced at 15 per cent., the same as at this time last year. Bolckow Vaughan are at 10; Ebbw Vale, 8 1/2; Marbella, 52s.; Niddrie, 40s. 6d.; Sheepbridge, 16 1/2; Steel Company of Scotland, 47s. 6d.

In shares of copper concerns there has been little business doing. Tharsis have been sold from 87s. 6d. to 88s. 6d., and Tinto have declined from 13 1-16 to 12 1/2. Arizona firmer at 6s. 3d.; Cape, 23s. 9d.

In shares of gold and silver mines a fair amount of business has been done, and prices are inclined to improve. Montana declined to 12s. 6d., but have recovered to 14s. Broken Hill Proprietary firmer on the upward tendency of the silver market and a further dividend of 1s. per share. Day Dawn Block have also advanced on more encouraging reports from the mine. African Gold Recovery and Cassel shares have been very flat on the adverse statements as to the probable result of the lawsuit regarding the patents. American Belle are at 2s. 6d.; British South Africa Chartered, 31s. 3d.; Balaghat, 5s. 6d.; Blue Spar, 1s. 6d.; Consolidated Gold Fields of South Africa, 44s. 3d.; Craven's Caledonia, 4s. to 6s.; Champion Reef, 75s.; Caratal, 6d.; Kapanga, 2s. 9d.; Kempinkote, 3s.; Lisbon-Berlyn, 2s. 3d.; Mallina, 12s. 6d.; Mysore Wynnad, 3s. 3d.; Moonstone, 6s.; New Gaston, 16s. 3d.; New Louis d'Or, 4s. 6d.; Otto's Kopje, 2s. 3d.; Orita, 2s. 3d.; Piggy Peak, 3s.; Spitzkop, 4s. 3d.; St. Augustine, 1s.; Sunburst, 1s. 9d.; and True Blue Block, 2s. 6d.

In shares of miscellaneous companies there has not been much business doing. In oil companies Linlithgow are at 10s. to 12s. 6d., and Young's 21s. Nobel's Explosives are at 13 1/2; Phospho Guano, 72s. 6d.; Roburite Explosives, 25s. to 30s.; and White Lead, 3s. 6d. to 4s.

N.B.—As usual at the holiday season the issue of above report will be discontinued for a few weeks.—J. G. M.

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock and Share Brokers, 69, Hanover-street, Edinburgh, report as follows under date of July 26:—The past week has been a very quiet one. Caledonian Railway Deferred Stock has receded from 43 15 16 to 43 1/2. North British from 38 1/2 to 38 9 16. Glasgow and South Western from 106 to 105 1/2. Brighton Deferred from 156 1/2 to 155 1/2. South Eastern Deferred from 80 1/2 to 79 1/2. Great North of Scotland has improved from 92 to 93 1/2. Bank shares are lower where changed. Clydesdale have gone from 21 1/2 to 21. Royal from 236 to 235 1/2. Union from 22 9-16 to 22 1/2. Insurance shares towards the end have been enquired for, and prices have advanced. Alliance have risen from 9 11-16 to 9 1/2. Commercial Union from 30 1/2 to 31. Lancashire from 5 to 5 11-16. Liverpool and London and Globe from 44 to 45 1/2. Royal from 47 1/2 to 48 1/2. Scottish Union and National A from 83s. to 84s. North British and Mercantile from 33 1/2 to 34. British South Africa shares have improved from 28s. 9d. to 33s. 3d. The shares of a few investment companies have risen to a small extent. Distillers, Coats, and Edinburgh Tramways are all unchanged. Union Steamship of New Zealand 2s. 6d. lower at 7 1/2.

JOINT-STOCK COMPANIES.

NEW REGISTRATIONS.

THE following are among the joint-stock companies registered at Somerset House since our last notice:—

"E" Syndicate (Limited).—Registered by Metchim and Son, 32, Clements Lane, E.C., with a capital of £415 in 1s. shares. Object, to carry on every description of exploration and mining business. Registered without Articles of Association.

Empress of Coolgardie Gold Mine (Limited).—Registered by Williams and Neville, 23, Austin Friar's Exchange, with a capital of £90,000, in £1 shares. Objects: To acquire by purchase, on lease or otherwise, work, and turn to account, two mineral properties, known as Nos. 41 and 91, situated in the Coolgardie Gold Field, colony of Western Australia, with a view thereto to enter into and carry into effect the agreement mentioned in Clause 4 of the Companies' Acts of Association, dated 3rd July, 1894, between Zebina Lane and the English and Scottish Syndicate (Limited) of the one part, and Robert Clarke (for the company) of the other part, and to carry on the business of mining in all or any of its branches.

Eastern Concessions (Limited).—Registered by W. Rawlins, 52, Queen Victoria Street, E.C., with a capital of £10,000 in £10 shares. Object, to enter into an agreement with M. Tuite, and to carry on business as financiers, bankers, company promoters, explorers, miners, &c. There shall not be less than three nor more than seven directors; the first to be elected by the signatories to the Memorandum of Association. Qualification, one share. Remuneration, 5 per cent. of the net profits divisible.

Yilgarn Syndicate (Limited).—Registered by Budd and Company, 24, Austin Friar's, E.C., with a capital of £1500 in £1 shares. Object, to acquire, develop, and turn to account any lands, property, mines, &c., in Western Australia. Most of the regulations contained in Table A apply.

COMPANIES AND LEGAL ANNOUNCEMENTS.

* Advertisements are inserted in this column at the rate of 9d. per line with a minimum charge of 7s. 6d.

THE PESTARENA UNITED GOLD MINING COMPANY (LIMITED).

10 PER CENT. SECOND MORTGAGE DEBENTURES.

NOTICE IS HEREBY GIVEN, that the Coupons numbered 32 and 33, of the 10 per cent. Second Mortgage Debentures of this company, due 1st December, 1893, and 1st June, 1894, respectively, will be paid at the Office on and after the 30th day of July, 1894.

The Directors are prepared to issue to the Debenture-holders fresh sheets of Coupons, with the Coupon No. 33 detached, and for such purpose the Debentures must be left at the Office of the Company.

By Order of the Board,
RICHARD GARLAND, Secretary.
Office, 7, Queen Street Place, London, E.C.,
25th July, 1894.

WANTED.

* Prepaid Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.

A MEMBER OF THE INSTITUTE OF CIVIL ENGINEERS, now in Mexico, with considerable experience in Mines, Railways, Tramways, Water Supply and Power, will undertake examinations of properties on favourable terms.
Address, "P. T.," care of Messrs. ROBINSON and WILKINS, Solicitors, 19, King's Arms Yard, E.C.

WANTED, SITUATION as Manager, Assistant Chemist or Assayer at works or mines at home or abroad.
Address, "FERRUM," MINING JOURNAL Office, 18, Finch Lane, London, E.C.

WANTED, VOLUME for the year 1893 of "THE MINING JOURNAL."
Address, "Box 37," MINING JOURNAL Office, 18, Finch Lane, London, E.C.

SHOT FIRING IN MINES.

THE ELECTRIC BLASTING APPARATUS COMPANY, Cinderford, Gloucestershire (established over 20 years), wish to APPOINT A FEW AGENTS in Colliery Districts, to sell their High and Low Tension Electric Fuses (Brain's Patent) made for use with any explosive, also Electric Batteries and firing cables.

SALES BY AUCTION.

* Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.

BILLITON COMPANY.

THE MANAGERS beg to give notice that on the PUBLIC AUCTION, to be held at Batavia on August 29, 1894, will be sold about

13,000 Picols of Billiton Tin.

A. V. KAPPEN, Director.
M. G. STAAL, Secretary.

The Hague, July 23rd, 1894.

FOR SALE.

* Prepaid Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.

FOR SALE, C. I. PUMP PIPES, 710 feet of 11 inch., very strong, bracketed flanges, 9 feet lengths.
Address, JOHN THOMAS Junr. and Co., Middlesbrough.

SHIPPING.

UNION LINE.

FOR SOUTH AFRICAN GOLD FIELDS.—WEEKLY SERVICE.—CAPE OF GOOD HOPE, NATAL, and EAST AFRICAN ROYAL MAIL STEAMERS.—The UNION STEAMSHIP COMPANY'S ROYAL MAIL and INTERMEDIATE STEAMERS will sail as follows for the SOUTH and EAST AFRICAN PORTS, to ZANZIBAR, calling at LISBON, MADEIRA, and TENERIFE.

Steamers.	Antwerp.	Rotterdam.	Hamburg.	Southampton.
15 Scot (twin screw)	—	July 31	Aug. 4	Aug. 11
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THE above-named company held its ordinary general meeting on Wednesday, at Dashwood House, New Broad-street, E.C., Mr. HENRY KIMBER, M.P., presiding.

The SECRETARY having read the notice convening the meeting, The CHAIRMAN said: Gentlemen, the reports of the directors and Mr. Murray, our local director, give you the result of our operations in New Zealand during the past 12 months, and you will see that, stated shortly, both reports are a record of the progress made in the development and stocking of our large estate. Probably the most concise summary of the operations will be found on the last page of the local director's report, in which you will see he has stated shortly the different heads under which he has expended the money which we placed at his disposal. Up to the time of his writing he had expended £2295 in these operations, which he then said were nearly completed, and at their completion he considered the estate would be well equipped and in good working order. Our flocks and herds have, of course, increased. At the date of the closing of the year's accounts—March 31—we had 1971 head of cattle, 98 horses, and 17,278 sheep, and we had, of course, a very much larger breadth of land under the plough and under grass. The effect of these operations upon the financial status quo was to reduce the loss, which in the previous accounts amounted to £3549, to the sum of £791 19s. 3d.: so that, although we are not making a profit, we are reducing the inevitable loss which attends the earlier operations of a large property such as this. As was discussed and explained at the former meeting, it is impossible for the owners of a large property like ours to sit on it and do nothing. Holding it involves some expense and very considerable loss. You must have someone to look after the property to keep it together and take care of it. If you do not, it is true you may save in salaries, but you lose in deterioration and discredit of the property. The financial result of the year would have been much better if the whole of the improvements upon which the money has been expended had been in a position at that date to earn money; but its full earning power had not arrived at fruition. For instance, the year's accounts only bring in a profit of about 10,000 sheep, whereas we had, at the close of the year, 17,278; so that the profit upon the sheep may this year be expected to be very much larger, and, in a similar manner, a large breadth—I think 1000 acres, Mr. Murray says—of extra land had been sown, upon which no return of any kind appears in the profit and loss account for the year now under review, but from which, through the mouths of our live stock, we may hope in the current year to see a profit which will appear in next accounts. I do not know that there is anything else I should say, but if anything occurs to you, gentlemen, I shall be very happy to answer questions to the best of my ability. I now beg to move, "That the report and accounts now presented be received and adopted."

Mr. J. McCOSH CLARK seconded the motion, and said he might supplement the Chairman's remarks, as an additional reason for trying to do something with the property, by pointing out that it helped them to meet the rates and taxes, which in a big property like theirs was a pretty heavy amount—between £600 and £700. Further, by working and improving the land they would be able to show, when buyers came forward, that the land of the company could carry a fair number of stock, and that any small manageable farms could be worked at a profit. Thereby they might be better able to sell the land, which, after all, was the aim and object of the company.

Mr. SCHMIDT said he was afraid the hope of soon finding buyers was not likely to be realised. In Mr. Murray's report there was a statement with regard to leasing land to Mr. Rich, but he did not see anything appearing in the accounts by way of rent.

The SECRETARY explained that the agreement with Mr. Rich was a favourable one, and he was given a lease of the property at a rental which was not to commence until the second year.

Mr. SCHMIDT said one of the New Zealand financial companies was last year largely interested in the company. He should like to know whether that was still the case, and whether the call had been duly paid?

The CHAIRMAN answered both questions in the affirmative.

Mr. STOBART asked if the directors were likely to make a call. The CHAIRMAN said they hoped not. They had given Mr. Murray instructions to keep within the estimates, and keep down expenditure as much as possible. The Chairman intimated that one of the directors (General the Hon. W. Fielding) was shortly going to New Zealand on private business, and had promised to visit the company's premises.

The motion was then unanimously carried.

The retiring directors (Mr. John Clark, Q.C., and General Fielding) were re-elected, on the motion of the CHAIRMAN, seconded by Mr. STOBART.

Mr. SCHMIDT proposed, and Mr. J. C. MEWBURN seconded, the reappointment of the retiring auditor (Mr. Samuel Slater), and this also was agreed to.

A vote of thanks to the Chairman and directors, proposed by Mr. STOBART and seconded by Mr. SCHMIDT, terminated the proceedings.

THE chief iron ore field in Colorado, which is yet undeveloped, or at least the one which has been the most thoroughly examined and explored, is 30 miles in an air line due east of Gunnison, and is known as the White Pine deposit. It is claimed that there are three distinct veins of iron ore on this property, one of which, a deposit of magnetic ore about 70 feet wide, was examined by the late Chas. A. Ashburner, who traced the outcrops for a distance of $\frac{1}{2}$ of a mile. The bed was not followed for a greater distance, as the area examined contained sufficient ore to supply for many years any demands which might be made upon it by an iron and steel plant comparable in size with any of the large plants at present operated in this country. Analyses of assorted ore from this deposit show 63.52 per cent. of metallic iron, 2.75 per cent. of silica, 0.32 per cent. of sulphur, and 0.13 per cent. of phosphorus. Specimens from the outcrop gave as high as 68 per cent. of metallic iron, and 0.10 per cent. of phosphorus.

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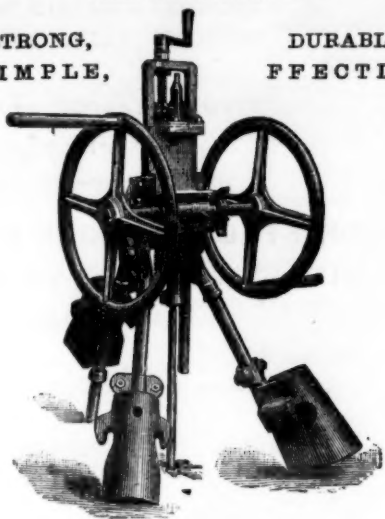
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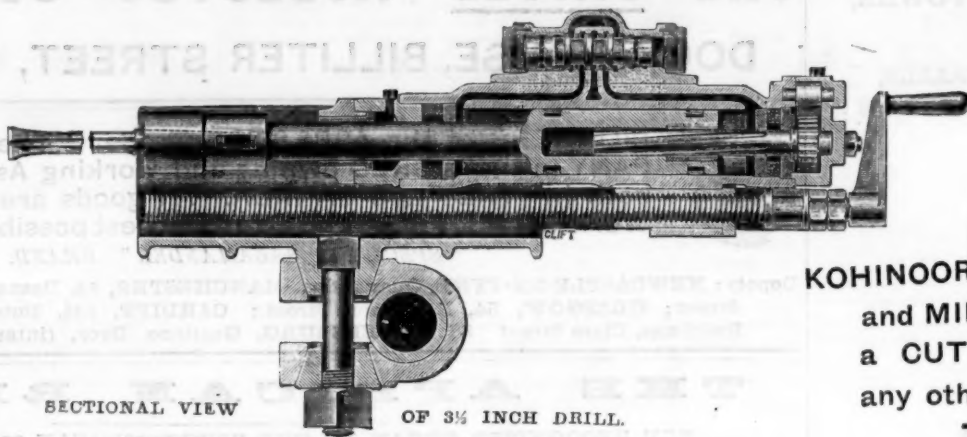
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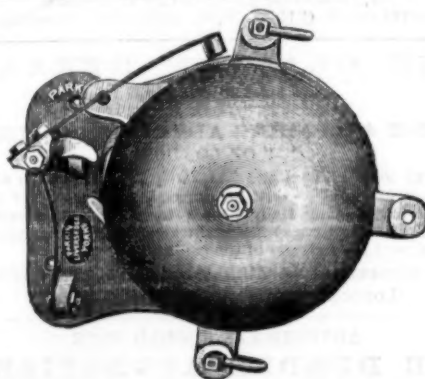
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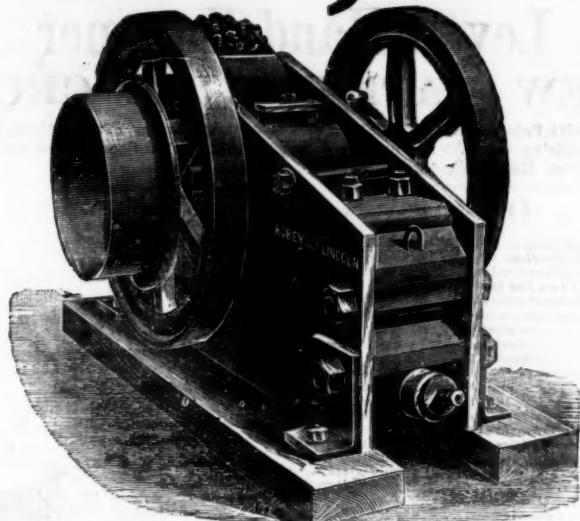
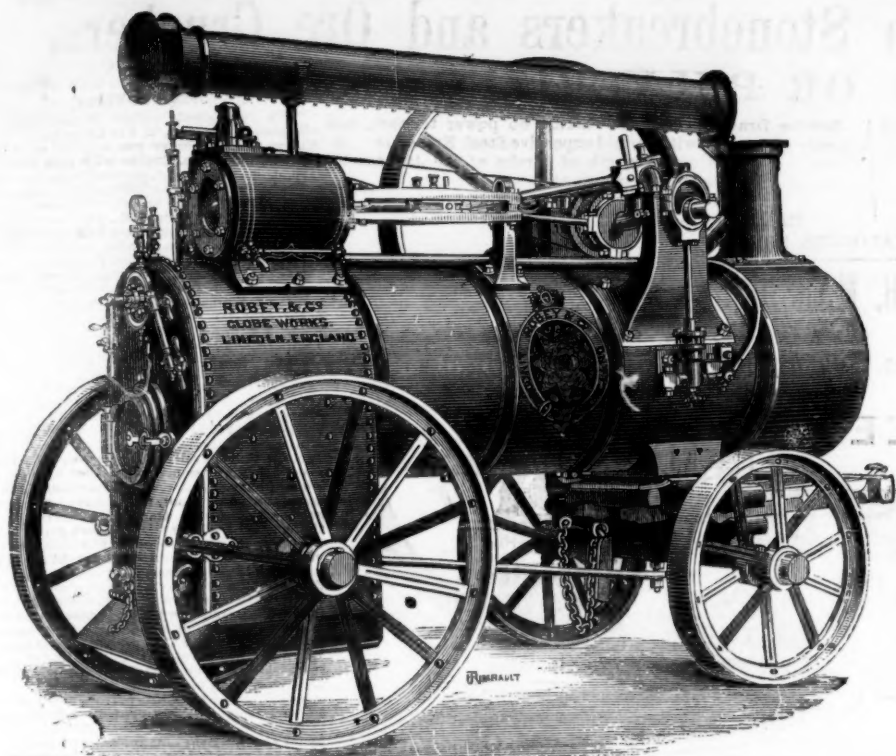
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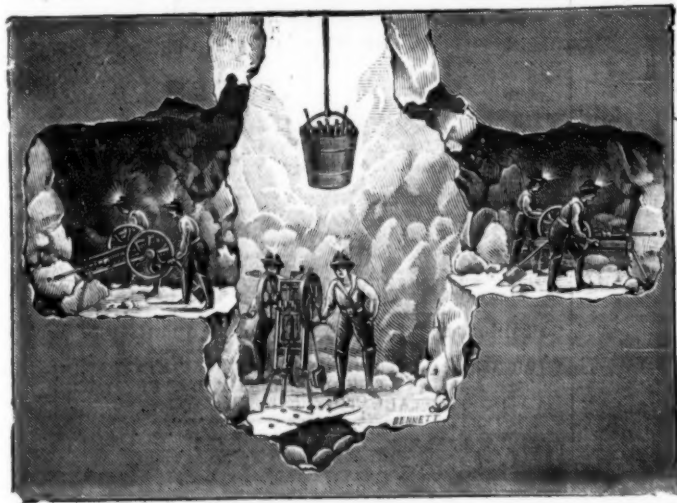
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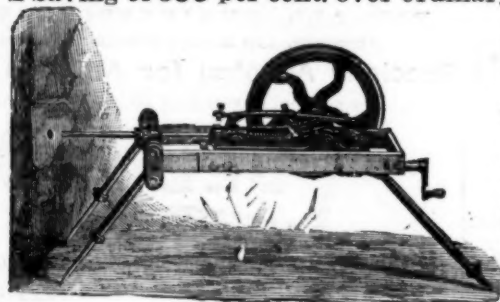
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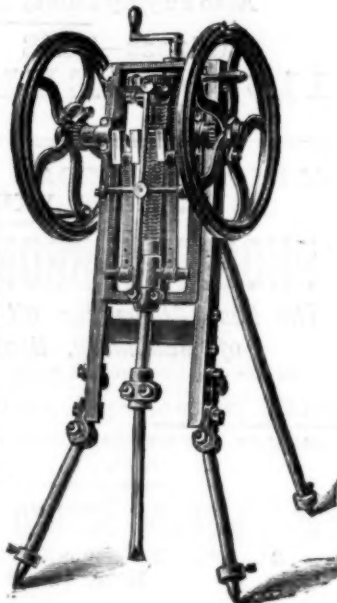
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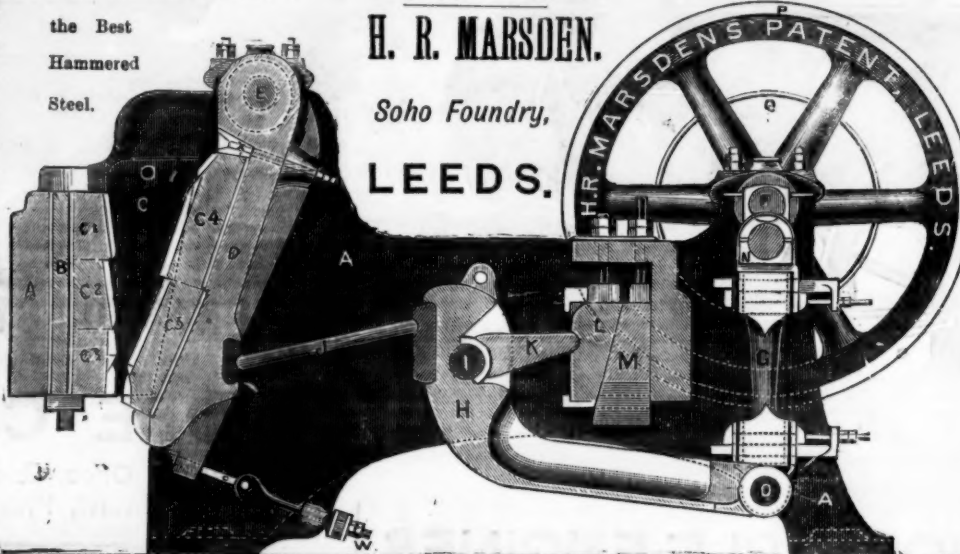
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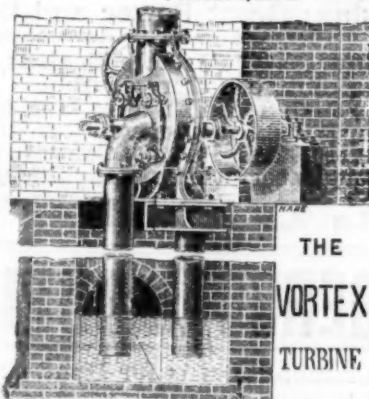
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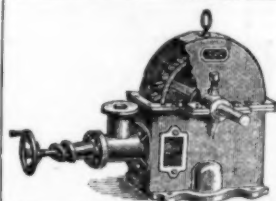


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